THE FACTORS INVOLVED IN SHAPING THE ATTITUDES OF STUDENT NURSES TOWARD ILLICIT DRUG USE: A MIXED METHOD STUDY

Thesis submitted for the degree of Doctor of Philosophy at the University of Leicester

by

Martyn Richard Harling

Department of Sociology

University of Leicester

2014
ABSTRACT

Martyn Richard Harling

The factors involved in shaping the attitudes of student nurses toward illicit drug use: A mixed method study.

Previous research has indicated that nurses may hold moralistic or stereotypical views of illicit drug users, suggesting that such views may influence the care provided to a potentially large number of patients.

The current study aimed to identify the factors influencing the pre-existing attitudes of student nurses toward illicit drug use, ascertain if these attitudes changed over the first year of training, and discover if any changes were specific to nurse education. No previous studies could be found which measured the impact of a range of variables on attitudes toward illicit drugs or longitudinal changes in attitude during nurse education.

A mixed methods design was employed, with student nurses and comparison groups of clinical psychology trainees, health and social care, social work and midwifery students completing an anonymous questionnaire at the start of their course (N=311). This questionnaire measured the students’ attitudes and collected data on a range of variables identified as significant in terms of attitudes to illicit drugs. The questionnaire was reissued to the same students at the end of their first year (N=267). Semi-structured interviews were also conducted with volunteers, from the students who had completed the questionnaires (n=25).

Results found that students who self-reported personal use of illicit drugs or were aware of use by family/friends expressed more positive attitudes. Student nurses indicated less tolerant attitudes than the other groups of students and minimal changes in attitudes were detected over the first year of training for all student groups. However, the student nurses’ attitudes increased, whereas the comparison groups all decreased.

The study highlights the need for a specific educational focus on illicit drug use, as simply entering nurse education appears insufficient in addressing negative attitudes. However, any educational approach aimed at improving attitudes needs to take into account the students’ previous experiences around illicit drugs.
ACKNOWLEDGEMENTS

Many thanks to: Dr Patrick White, Dr Marilyn Christie and Dr Ira Unell for their supervision; Professor Mark Avis, Heather Bower, Mathew Gough, Chris Palmer, Kerry Welch and Alan Williams for their support in undertaking the current study; and Christine Overy and Dr Helen Philpott for their diligent proof reading of the various drafts.

Thanks are also due to Sam, Arthur, Maia and George for their patience and understanding, all of the students whose contributions made the research possible and the Universities who were willing to participate in the study.

Without all of these contributions this thesis would never have been possible.
## CONTENTS

**Abstract**  

**Acknowledgements**  

**Chapter 1: Introduction**  

**Chapter 2: Literature review focusing on attitudes, illicit drug use and nursing**  

**Attitudes**  

- Tripartite model  
- Implicit and explicit attitudes  

**Illicit drug use**  

- An historical account of drug use  
- The birth of the drug clinic  
- The media  
- Policy agendas  
- Conflicting perspectives and education  

**Nursing**  

- Nurse education  

**Summary**  

**Chapter 3: Literature review focusing on the potential factors influencing attitudes towards illicit drugs**  

**Theoretical perspectives**  

- The Theory of Planned Behaviour  
- The ‘normalisation’ theory  
- Structuration theory  

**Illicit drug use by student nurses**  

- Research on illicit drug use amongst qualified nurses  

**The impact of close social networks on illicit drug use**  

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>ii</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>iii</td>
</tr>
<tr>
<td>Chapter 1: Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Chapter 2: Literature review focusing on attitudes, illicit drug use and nursing</td>
<td>6</td>
</tr>
<tr>
<td>Attitudes</td>
<td>6</td>
</tr>
<tr>
<td>Tripartite model</td>
<td>7</td>
</tr>
<tr>
<td>Implicit and explicit attitudes</td>
<td>9</td>
</tr>
<tr>
<td>Illicit drug use</td>
<td>10</td>
</tr>
<tr>
<td>An historical account of drug use</td>
<td>13</td>
</tr>
<tr>
<td>The birth of the drug clinic</td>
<td>20</td>
</tr>
<tr>
<td>The media</td>
<td>25</td>
</tr>
<tr>
<td>Policy agendas</td>
<td>27</td>
</tr>
<tr>
<td>Conflicting perspectives and education</td>
<td>34</td>
</tr>
<tr>
<td>Nursing</td>
<td>38</td>
</tr>
<tr>
<td>Nurse education</td>
<td>39</td>
</tr>
<tr>
<td>Summary</td>
<td>43</td>
</tr>
<tr>
<td>Chapter 3: Literature review focusing on the potential factors influencing attitudes towards illicit drugs</td>
<td>45</td>
</tr>
<tr>
<td>Theoretical perspectives</td>
<td>45</td>
</tr>
<tr>
<td>The Theory of Planned Behaviour</td>
<td>46</td>
</tr>
<tr>
<td>The ‘normalisation’ theory</td>
<td>49</td>
</tr>
<tr>
<td>Structuration theory</td>
<td>54</td>
</tr>
<tr>
<td>Illicit drug use by student nurses</td>
<td>57</td>
</tr>
<tr>
<td>Research on illicit drug use amongst qualified nurses</td>
<td>60</td>
</tr>
<tr>
<td>The impact of close social networks on illicit drug use</td>
<td>63</td>
</tr>
</tbody>
</table>
Generating the summative attitude score from the Likert scale 135
Analyzing the quantitative data 136
Multivariate analysis 136
Variable entry 137

Interviews (qualitative data) 138
Qualitative data analysis 141

Ethical considerations 149
Informed consent 149
Reciprocity 150
Confidentiality 151

Limitations of the current study 152
Questionnaire 153
Longitudinal measure 154
Access to participants 156
Comparisons with medical students 156
Gatekeepers 157

Summary 159

Chapter 6: Quantitative results 161
Self-reported illicit drug use 162
The validity of self-reported rates of illicit drug use 165
Characteristics of the student nurses’ summative attitude scores at the start of their training 169

Research question 1 171
Research sub-question 1.1 173
Research sub-question 1.2 176
Research sub-question 1.3 177
Summary of findings for research sub-questions 1.1, 1.2 and 1.3

Religion 180
Ethnicity 181
Age 183
Education linked to illicit drugs 184
Level of entry qualification 185
Summary for question 1 186

Research question 2 188
Summary for research question 2 191

Research question 3 191
Experience of working with illicit drug users 193
Experiences in practice settings 195
Research question 3.1 196

Multivariate analysis 198
Recoding dummy variables 198
The final regression model 200
Diagnostic tests 203

Summary 204

Chapter 7: Qualitative results 206
Illicit drug using behaviour 209
Hierarchy of illicit drugs 215
Reasons for changing drug-using behaviour 218

Personal background 219
Illicit drug use by family and friends 222
Environment 226

Religion 232
Knowledge around illicit drugs 235
Thematic Map 237
Changes in attitudes over the first year of training 240

Practice experiences 244

Education linked to illicit drugs 249

Working with illicit drug users 251

Summary 253

Chapter 8: Discussion 255

Research questions 257

Research question 1.1: Do student nurses with a history of illicit drug use have different attitudes to those with no history of illicit use? 258

Research question 1.2: Do student nurses with friends or family members who have used illicit drugs have different attitudes to those with no friends or family members who have used illicit drugs? 262

Research question 1.3: Do student nurses who grew up in an area or environment where illicit drug use was common have different attitudes to those who did not grow up in an area or environment where illicit drug use was common? 266

Research question 1: What factors influence the attitudes of student nurses toward illicit drug use at the start of their training? 269

Research question 2: How do the attitudes of student nurses, at the start of their training, compare with other health and social care students at a similar stage of higher education? 272

Research question 3: Is there a change in the attitudes of the student nurses that can be linked to their first year of nurse education/training? 278

Practice experiences 279

Classroom experiences 281

Possible implications for nurse education 283

Limitations 288

Measurement of specific variables (factors) 289

Longitudinal change in attitude 291
Future research 292

Summative attitude scale 292

Closing comment 294

Chapter 9: Conclusion 295

Appendices

Appendix A. Questionnaire 300
Appendix B. Interview schedule 305
Appendix C. Participant Information Leaflet 306
Appendix D. Piloting the questionnaire 308
Appendix E. Screeplot from Principal Components Analysis [PCA] of Likert scale 311
Appendix F. Pattern and structure matrix for PCA 312
Appendix G. Consent form 313
Appendix H. Thematic code descriptor 314
Appendix I. Variables entered into regression model 315
Appendix J. Diagnostic tables and tools for final regression model 317

References 319

Tables

Table 1. Numbers of completed questionnaires 123
Table 2. PCA Structural matrix (values less than 0.5 removed) 131
Table 3. Cronbach’s alpha for Likert scale 134
Table 4. Percentages of nursing students in the current study and the general public (Hoare & Moon, 2010) who had used illicit drugs in the previous year 163
Table 5. Self-reported illicit drug use and recanting rates for the student nurses 168

Table 6. Mean attitude scores and measures of dispersion grouped by the student nurses’ use of illicit drugs 174

Table 7. Mean attitude scores and measures of dispersion grouped by awareness of illicit drug use by family or friends 177

Table 8. Mean attitude scores and measures of dispersion grouped by the commonality of illicit drug use in the childhood area/environment 178

Table 9. Self-reported religious affiliation of the student nurses 181

Table 10. Self-reported ethnicity of the student nurses 182

Table 11. List of factors (independent variables) and the strength of their association with the attitude score (dependent variable) 187

Table 12. Mean attitude scores and measures of dispersion for each student group at the start of their courses 189

Table 13. Mean attitude scores and measures of dispersion at the end of year 1 grouped by contact with illicit drug users 194

Table 14. Mean attitude scores and measures of dispersion at the start and end of training for each student group 196

Table 15. Effect sizes for the changes in attitude scores between the start of training and the end of the first year 197

Table 16. Final regression model 200

Table 17. Details of the students involved in the interviews 208
| Figure 1. | Typology of media stories focusing on drug use (Giulianotti, 1997, p.419) | 25 |
| Figure 2. | Integrated model developed from the TPB (Fishbein et al., 2003, p.4) | 47 |
| Figure 3. | The Spiralling Research Approach (Berg, 2007, p.24) | 100 |
| Figure 4. | Concurrent triangulation design (diagram adapted from Townsend, Floersch & Findling, 2010, p.36) | 104 |
| Figure 5. | Flow chart showing the progression of the study | 111 |
| Figure 6. | Response grid for question 16 indicating personal drug use | 120 |
| Figure 7. | ‘Node tree’ entered into Nvivo 8 software package | 144 |
| Figure 8. | The student nurses’ attitude scores at the start of training | 170 |
| Figure 9. | Highest qualification of the student nurses on entry to training (n = 151) | 186 |
| Figure 10. | Mean attitude scores for each sub-group (start of training) | 189 |
| Figure 11. | Difference between the summative attitude scores for the student nurses | 192 |
| Figure 12. | Thematic Map | 238 |
| Figure 13. | Framework for warranting research conclusions (Plowright, 2011, p.139) | 256 |
Chapter 1: Introduction

The research study described in the current thesis focused on the attitudes of student nurses toward illicit drug use. The aims of the current study\(^1\) were to identify the factors that influence the pre-existing attitudes of student nurses toward illicit drug use, consider the ways in which these attitudes are adapted during the students’ first year of professional training/education, and discover if such adaptation is specific to nurse education.

The term ‘illicit drug’ is used to refer to psychoactive substances categorised as A, B or C under The Misuse of Drugs Act (Home Office [HO], 1971), thereby excluding substances that can be legally purchased and used in the UK, such as alcohol and tobacco. Legal substances were excluded from the current study, since their use is more acceptable in society and thus attitudes towards their use are likely to differ from illegal drugs.

Focusing on the attitudes of nurses is significant as they are the largest group of health and social care professionals trained in the UK each year (Department of Health [DOH], 2008), with approximately 400,000 employed within the NHS alone (National Health Service [NHS], 2007). It is likely that individuals using or misusing illicit drugs will come into contact with nurses when seeking treatment for issues associated with illicit drug use or for other health issues.

Nursing has a long tradition of recruiting students with a range of educational qualifications and previous work experiences, and many students originate from socially excluded backgrounds (DOH, 1999). This would tend to suggest a diverse range of previous experiences.

---

\(^1\) The research study conducted for this thesis is subsequently referred to as the ‘current study’ and the writer of the thesis refers to himself as the ‘author’, thus enabling the reader to differentiate between the current study and the research and ideas of previous contributors to the field of enquiry.
and attitudes towards illicit drug use which, unless changes occur during training, should be reflected in qualified nurses. However, such diversity has not been identified in the existing literature. Exceptionally, one study focusing on nurses working in Accident and Emergency (A&E) departments in Ireland found ‘near optimal attitudes’ for working with substance-using patients (Kelleher & Cotter, 2009, p.12). Apart from this study, the consensus presented in the existing literature is that many qualified nurses have negative attitudes toward individuals who misuse illicit drugs (Carroll, 1995; Howard & Chung, 2000; Moodley-Kunnie, 1988; Peckover & Chidlaw, 2007; Riddell, 2012). Carroll (1995, p.36) found “judgemental and punitive attitudes to drug misusers”. Such attitudes are significant because negative attitudes towards working with particular patient groups have been recognised as influencing the nurse/patient interaction, which in turn affects treatment outcomes. Walsh (2006), commenting on ageist views within nursing, noted that:

The attitude we hold about people tends to colour the way we interact with them. Much of the bad practice that we witness at times stems directly from a negative attitude. (p.27)

Equally, negative attitudes toward individuals perceived as illicit drug users have the potential to influence care. This may result in drug misuse being inadequately managed within healthcare settings (Happell, Carta & Pinikahana, 2002) or differences in the way nurses interact with drug using patients who are seeking treatment for other health issues (Peckover & Chidlaw, 2007). Peckover and Chidlaw (2007) explored the views expressed by district nurses and stated that:
Accounts of clients who misuse substances were heavily interwoven with notions of ‘prejudice’ and ‘stigma’, describing aspects of their own practice, the service provision of others, and the wider societal and community views about substance users. (p.240)

In considering the factors associated with how attitudes to illicit drugs have been established, it was anticipated that the current study could provide insights, which may be of benefit in the planning and delivery of nurse education. Addressing negative attitudes amongst student nurses towards individuals using illicit drugs may ultimately improve the care or advice received by a significant number of individuals.

Despite such potential for improving care there is presently a paucity of literature directly concentrating on the focus of the current study. There are some published studies that provide insights into the attitudes of student nurses and how they are formed. Norman (2001a) measured the attitudes of a group of final year nursing students to intravenous illicit drug use, reporting that 42% indicated negative attitudes. A study described by Allcock and Standen (1999) and Allcock and Toft (2002) considered the attitudes of student nurses to pain relieving drugs. This study indicated that the student nurses involved had transposed their personal views and feelings around the possibility of addiction onto the risks posed to their patients. Allcock and Toft (2002) suggested that, where there was a gap in educational focus, students tended to assimilate personal attitudes into how they work with patients. In a study focused on the factors influencing moral identity, Randle (2002) found that student nurses appeared to conform to the dominant power culture of healthcare settings, and their “central motivation was to become like the nurses they worked with” (Randle, 2002, p.254). Randle (2002)
concluded that student nurses adopt a stance that conforms to that of existing nurses. These studies support the need to consider nurse education in connection with professional attitudes.

In addition to studies conducted within the nursing profession, important insights can also be gained from studies that have compared the attitudes of groups of different healthcare workers around working with illicit drug users. Differences in attitudes have been identified between different groups of health and social care workers within similar working environments (Richmond & Foster, 2003; Watson, Maclaren & Kerr, 2006; Raistrick, Russell, Tober & Tindale, 2007). Whilst these studies focused on existing professionals, rather than students, they support the idea that some professional groups have more tolerant attitudes towards working with illicit drug users than nurses.

Consistent reports of negative attitudes within the nursing profession, and the potential to improve the care given to substance misusers if such negative attitudes were addressed, were significant in developing the focus of the current study. It was envisaged that the findings of the current study might be of benefit to educators involved in planning and delivering nurse education and might also be more widely applied to the education of other health and social care professional groups, linked to illicit drug use.

In the remaining chapters of this thesis the literature reviews situate the current study within contemporary discourse linked to the topic area, the methodology and methods chapters outline the research undertaken in order to address the research questions set for the current study, the results chapters discuss the findings from this
research and finally the discussion chapter considers the implications of these findings.
Chapter 2: Literature review focusing on attitudes, illicit drug use and nursing

The focus of the current thesis was on the attitudes of student nurses toward illicit drug use. The aims of the current study were to identify the factors that influence the pre-existing attitudes of student nurses toward illicit drug use, consider the ways in which these attitudes are adapted during the students’ first year of professional training/education, and discover if such adaptation was specific to nurse education. In this chapter the key foci of attitudes, illicit drug use and nursing will be defined and examined in order to provide a context for the current study.

Attitudes

An initial problem when considering the attitudes of student nurses to illicit drugs relates to the fact that the concept of an ‘attitude’ is particularly difficult to clearly define and measure. Despite the fact that the study of attitude formation and change are key foci in several areas of psychology, difficulties remain in defining and measuring such an intangible concept. At a simplistic level, attitudes have been described as an individual’s system of appraising people, objects or ideas, which are often called the ‘attitude object’ (Aronson, Wilson & Akert, 2010). Over the last century, the study of attitudes and attitude change has remained a key area for psychological research. The relevancy of such knowledge is clearly broad, impacting on many areas of human activity, including areas of commerce such as sales and marketing, and health and social care activities such as health promotion campaigns. Prislin and Crano (2008) suggested that there have been four peaks in the study of attitudes. The first peak reflected psychology’s initial interest in the fundamental nature of attitudes and occurred during the 1920s and 1930s. The second peak, focusing on the mechanisms of attitude change, took place
during the 1950s and 1960s. The third peak during the 1980s and 1990s focused on attitude systems, considering attitudes in the context of their complexity of structure, content and functioning. Prislim and Crano (2008) suggested that the fourth ‘modern era’ peak equates to a consolidation of previous knowledge and a re-evaluation of attitudes, considering ‘intrinsic’ and ‘extrinsic’ manifestations and the different approaches required in measuring these.

Tripartite model

Whilst several theorists have suggested models that attempt to explain the origins of attitudes, Olson and Kendrick (2008) pointed out that one of the most influential to emerge during the 20th century has been the ‘tripartite’ model which emphasises the cognitive, affective and behavioral components of attitudes. The cognitive component emerges from a rational or dispassionate appraisal of the attitude object (Aronson et al., 2010), serving the purpose of quickly appraising an attitude object to ascertain if it is worth engaging with. Attitudes that are predominantly cognitive in nature are relatively easy to modify when new information is presented. The affective component of an attitude is more closely linked to an individual’s value base and their feelings associated with the attitude object. Attitudes that are more firmly based in the affective domain tend to be more difficult to modify as the emotional state underlying the attitude is not easily influenced by rational argument or contradictory evidence (Aronson et al., 2010). The behavioural component of the tripartite model refers to our actions linked to the attitude object and is often viewed as an outward manifestation of the individual’s underlying attitudes (Olson & Kendrick, 2008).
The tripartite model has led to the development of several theories of attitude change, such as the Theory of Reasoned Action [TRA] (Fishbein & Ajzen, 1975) and the Theory of Planned Behaviour [TPB] initially described by Ajzen (1991). Theories on attitude change have a long tradition in health psychology and have been used “extensively to examine predictors of behaviours” (Ogden, 1996, p.28). The TPB is essentially an extension of the earlier TRA, developed in order to improve the ability of the model to predict behaviour (Armitage & Conner, 2001). The TPB, in particular, has also been widely used as a theoretical base for research in the substance misuse field (Taylor, Bury, Campling, Carter, Garfied, Newbould & Rennie, 2007).

There are, however, problems with models such as the TPB which suggest that attitudes lead to behaviour. As Fishbein, Hennessey, Yzer and Douglas (2003) acknowledged, behaviour can also precede attitude formation. An individual’s actions upon initially encountering an attitude object influence actions when subsequently confronting the same attitude object. This appears to be particularly significant when the individual’s cognitive and affective responses to the attitude object are weak (Olson & Kendrick, 2008). Van Overwalle and Siebler (2007) also pointed out that levels of cognitive processing can vary depending on the perceived importance of the issue under consideration. Important issues tend to be scrutinised in depth and yet, as Van Overwalle and Siebler (2007) pointed out:

> when motivation or capacity for systematic scrutiny of information is low, such as when the issue is of low personal relevance or when time is limited, people use a heuristic processing strategy. (p.365)
Heuristic processing is where a situational cue triggers an automatic response based upon a set of stored rules formulated during previous encounters with the attitude object (Van Overwalle & Siebler, 2007). These issues can lead to problems in the measurement of attitudes as a reaction to an attitude object could emerge from a superficial cognitive process or in-depth consideration, and behaviour is not a reliable indicator of attitude strength (Prislin & Crano, 2008). Thus simply measuring previous experience of illicit drug use by participants in the current study would not provide a reliable indication of their attitudes towards the topic.

Implicit and explicit attitudes

In addition to theories associated with the tripartite perspective on attitudes, recent research has acknowledged that attitudes comprise both judgment and memory, with contemporaneous evaluative thoughts and stored memory being identified as significant factors in an individual’s attitudes (Albarracín, Wang, Li & Noguchi, 2008). The memory component of attitudes has been further categorised into ‘explicit’ and ‘implicit’ memory. These categories can be seen as reflecting Freud’s model of the psyche, which proposes conscious and sub-conscious forces influencing an individual’s interactions. Explicit memories can be seen as those of which the individual is consciously aware and implicit memories as influential experiences that remain out of the realms of conscious recollection (Albarracín et al., 2008). Schwarz (2008) pointed out that the measurement of explicit and implicit based attitude responses requires the adoption of rather different approaches. Traditionally, attitudes have been measured using Likert scales. Likert scales have been linked to a range of statements relating to the attitude object, with the subject being required to state how much they agree or disagree with the statement. Such approaches only measure attitudes on an explicit
level and new techniques based on reaction times or facial expressions have been developed in order to measure implicitly based attitudes (Schwarz, 2008). However, as Schwarz (2008) pointed out, implicit attitude tests are technically difficult to conduct and it is rather simplistic to assume that such tests can accurately exclude conscious reactions. Either type of approach can be influenced by a range of contextual factors such as the demographics of the researcher and environment in which the test is conducted.

Given the aims and scope of the current study and the issues associated with the measurement of implicit attitudes, it was felt that the best approach to measuring the participants’ attitudes toward illicit drug use would be to use an ‘explicit’ approach. This approach has been adopted in existing research studies with a similar focus on the attitudes of health and social care professionals towards illicit drug use. Whilst the explicit expression of attitudes may be dependant on a range of external factors, such as the social environment in which the respondent is placed, it was felt the most appropriate measure for the current study.

**Illicit drug use**

Theoretical models and ideas linked to the concept of attitudes highlight the importance of acknowledging stereotypical perceptions and stigma as significant influences on an individual’s attitudes and behaviour. In addition, the TPB acknowledges the role of social influences such as the media and perceptions of social norms, raising the importance of considering the context within which attitudes develop. May (1996) also noted the need to gain an historical perspective when attempting to understand individual attitudes and behaviour.
A historical view should help us to see how certain cultural forces and events have shaped and molded the attitudes and behavior patterns which underlie our contemporary psychological conflicts. A historical perspective can also help free us from the ever-present danger - especially a danger in the social sciences - of absolutizing a theory or method which is actually relative to the fact that we live at a given moment in time in the development of our particular culture. (May, 1996, p.55-56)

Therefore, in order to achieve some clarity and understanding around the key focus of the current study, differing perspectives and views on illicit drug use within society as a whole will be considered.

Throughout history, a range of societal, political, religious, scientific and medical interests have influenced perspectives on drug use. Gaining a broad picture on illicit drug use provides insight into how an individual’s attitudes and views may have evolved and been influenced by the society in which they live. Along with members of the public, student health and social care professionals are likely to have been, and continue to be, influenced by how illicit drug use is viewed, discussed and dealt with at a societal level. Riddell (2012) pointed out that nurses are “raised with the same values and biases as the rest of society” (p.17) and simply reflect the range of views present within society in general. Riddell (2012), rather pessimistically, concluded that without a change in how drug use is viewed in society it is unlikely that drug users will receive the level of compassionate care specified in the nursing and midwifery code of conduct (Nursing and Midwifery Council [NMC], 2008).
Prior to considering the complex issues and discourse associated with illicit drug use, it is necessary to acknowledge that simply defining what is meant by the term ‘drug’ is far from straightforward. The term may be applied to substances used in the treatment of diseases or illnesses, often under medical supervision, or applied to legal or illegal substances, used for their psychoactive properties in social settings (Rassool, 2009). Some drugs may become illegal if acquired through unsanctioned means, for example the use of a prescribed drug by an unintended recipient, or if the circumstances in which the drug is used are seen as hazardous, such as driving under the influence of alcohol. For the purposes of this thesis, illicit drugs are considered to be those substances taken for non-medical reasons which are now controlled under the Misuse of Drugs Act (HO, 1971).

Despite a substantial body of literature associated with illicit drug use, the rhetorical nature of much of the discourse surrounding the activity requires acknowledgement and critical consideration. The use of a range of substances has gained notoriety in western societies, evoking emotive responses from governments and often polarising the views of different sections within society. Whilst there is a vast amount of literature focused on the topic, there is also a great deal of misinformation and it is often hard to find a dispassionate view. Even at an individual level, amongst authors who have used a particular drug, differing opinions may be expressed depending upon their personal interpretation of the experience. Such variation in experience may be explained by differences in the individual’s perceived levels of enjoyment or dependency, linked to their particular drug of choice. Examples of contradictory viewpoints can be found throughout modern and classic literature. De Quincey (1985) presented a rather gloomy view of opium dependency, despite writing
at a time (1821) when use of opiates was legal and widely adopted across all levels of British society:

> opium had long ceased to found its empire on spells of pleasure; it was solely by the tortures connected with the attempt to abjure it that it kept its hold. (p.78)

Whereas, Burroughs (1977), writing at a time (1953) when the use of opiates was illegal in the USA, stated:

> I have never regretted my experience with drugs. I think I am in better health now as a result of using junk [heroin] at intervals than I would be if I had never been an addict. When you stop growing you start dying. An addict never stops growing. (p.xv)

From a societal perspective, few activities raise greater levels of concern than illicit drug use and the global trade networks it has created. Thus, in order to fully appreciate the factors leading to such concern, it is important to consider the phenomenon from a critical perspective, transcending the boundaries of hermeneutic evidence or positivistic measurement.

**An historical account of drug use**

Critically considering the history of illicit drug use provides insights into changing perspectives on illicit drug use, as a human behaviour, and recognises the motivations that have influenced the state’s response to the activity. In addition, acknowledging how illicit drug use has been seen over recent decades, and the role of the media in reporting perspectives on the subject gives some indication of the
differing viewpoints to which the students involved in the current study may have been exposed.

During the 20th and early 21st centuries, many psychoactive drugs moved from a position of limited national control to a global issue requiring international legislation and directives from the World Health Organisation. Now seen as a problem associated with criminal activity and urban degeneration, the fact that many psychoactive substances have a long history of use, is often overlooked in the discursive frameworks of the late modernity. However, as Huxley (1974) pointed out:

All the vegetable sedatives and narcotics, all the euphorics that grow on trees, the hallucinogens that ripen in berries or can be squeezed from roots – all, without exception, have been known and systematically used by human beings from time immemorial. And to these natural modifiers of consciousness modern science has added its quota of synthetics ... Most of the modifiers of consciousness cannot now be taken except under doctor’s orders, or else illegally and at considerable risk. For unrestricted use the west has permitted only alcohol and tobacco. (p.52)

Whilst evidence for the pre-historic use of hallucinogenic plants and coca leaves in South America is well documented, references to the use of similar naturally occurring substances in Europe, have moved into the realms of folklore (Furst, 1990). Significantly, Furst (1990) ascribed this to the adoption of new religions, with society moving away from a spiritual link with the natural world toward a position of obedience to one supreme deity. Many of the traditional shamanistic cultures in South America have used hallucinogenic substances in the
form of native cacti, fungi and other plants for thousands of years, predominantly in transcendental religious activity (Furst, 1990). After the discovery of South America in 1492, Spanish conquistadors attempted to eradicate such practices, imposing their own religious beliefs and values on the inhabitants of the areas they conquered. Such conflicts between native beliefs and those imposed by technologically advanced invading armies in the 15th and 16th centuries led to documented acts of brutality and genocide across South America (Brading, 1991).

In the United Kingdom, society’s relationship with a range of substances, now primarily controlled under the Misuse of Drugs Act (1971), has been complex and at times contradictory (McMurran, 1994). Gaining a clear picture of this relationship is far from simple, as Kohn (1992) stated:

Drugs have lost their history. A few antique episodes remain in popular consciousness: opiate use among Romantic poets, Freud’s unwise dalliance with cocaine, Britain’s Opium Wars against China, the drug fever of pre-Hays code Hollywood. But there is little sense of how certain drugs came to assume their special role, corrosive and Dionysiac, in twentieth century culture. (p.1)

Seddon (2010) linked the rise of ‘modern liberal capitalism’ with increasing levels of concern over the use of certain psychoactive substances. Clearly the industrial revolution marked significant economic changes and increases in state governance and regulation around certain substances. However, it is also important to consider other factors such as the imperialist motives of significant world
powers and the rise of the scientific professions (such as medicine and psychology) in changing society’s views on drug use.

In economic terms, the sale of Indian opium to China during the 18th and 19th centuries, made a significant contribution to the wealth of the UK (Booth, 1996). This led to a situation where the British East India Company, who principally organised this trade, wielded considerable political power (Davenport-Hines, 2001). The Chinese made several notable attempts to prevent the trade, resulting in two opium wars during the mid 19th century. These wars were instigated when Chinese authorities seized several consignments of opium which was deemed to be an affront to Britain’s position as a world power (Berridge, 1999). Further economic pressure from the British East India Company led to the British government sending heavily armed military expeditions in order to force the Chinese to accept the illegal importation of opium (Davenport-Hines, 2001). Ultimately this militaristic response to Chinese attempts to halt the trade resulted in the ceding of Hong Kong as a trading port and the continuation of the opium trade into China until the start of the 20th century. During this period in history, opium was also available for consumption in the UK. Largely originating from Turkey, it was usually eaten or drunk in preparations such as Laudanum (Berridge, 1999). The Chinese tended to smoke the drug, which “was considered a filthy, entirely foreign habit” (Tyler, 1995, p.305). Domestic drug use was considered acceptable by the majority of the population, with a few dissenting voices emerging from largely religious, prohibition groups. Such dissention tended to win little favour within the Government, possibly due to the large amounts of tax revenue generated by opium sales (Davenport-Hines, 2001). Whilst the use of opiates and cocaine was largely seen as an acceptable activity, excessive use was viewed as a moral failing, linked to a lack of willpower (McMurran, 1994).
Since freedom of choice was considered to be a key element in an individual’s decision to use alcohol or drugs, those who chose to use excessively were deemed to be morally at fault, requiring punishment rather than treatment interventions.

The industrial revolution and subsequent moves towards a manufacturing based society led to a gradual erosion of the traditional class structure and wealth began to be generated through industry and labour rather than being inherited. This new wealth led to the rise of the middle classes as a significant political force, often with differing moral values to traditional landowners. Such changes in the structure of society effectively increased the power of the prohibition movement in the UK, as values based on religious philanthropy came to the fore (Davenport-Hines, 2001). Allied to this moralistic movement, the continuing development of medicine as a science added to the lobby to control the use of substances such as opium and cannabis (Kohn, 1992; Davenport-Hines, 2001; Walton, 2001). Public opinion toward opium also began to change, since Chinese opium, along with the habit of smoking the drug, had started to be reported in the ports of London (Berridge, 1999). Finally, during the Great War, concerns were raised in the media that women working as prostitutes were selling cocaine and opiates to soldiers, compromising their ability and inclination to fight (Kohn, 1992; Seddon, 2010). This led to concerns that existing controls on the supply of these substances to the public by pharmacists, were insufficient, warranting the introduction of legislation in the form of the Defence of the Realm Act [DORA] Regulation 40B (Home Office [HO], 1916) (Kohn, 1992; Seddon, 2010).

If any person sells, gives, procures, or supplies, or offers to sell, give, procure, or supply cocaine to or for any person, other than
an authorised person, in the United Kingdom, he shall be guilty of a summary offence. (HO, 1916, p.142)

Thus DORA (HO, 1916) effectively criminalised the supply of cocaine and opiates during the conflict and allowed the UK Government to subsequently amend the act relatively easily. Whilst the Defence of the Realm Act (HO, 1916) was clearly a wartime legislative response aimed at bolstering the UK’s position as a world military power, the effect on patterns of drug use and subsequent legislation were substantial and longstanding (Walton, 2001). Restrictions on public houses opening times, for example, were instigated under DORA (HO, 1916), remaining in force until the 1980s (Kohn, 1992).

At the end of the Great War, intense media interest in drug use was initiated by the death of a young actress, Billie Carleton, after attending an armistice ball at the Albert Hall (Kohn 1992). An acquaintance of Carleton, dress designer Reginald De Veulle, was eventually convicted of supplying the cocaine implicated in her death, although acquitted of her manslaughter. The case was extensively covered in the media at the time and has since been recognised as a significant event in legal and public perceptions of the dangers associated with certain drugs. Media coverage of the Carleton case served to establish drug use, in particular cocaine use, as outside mainstream societal norms despite it only being made illegal a few years previously.

In the aftermath of the Great War a unified lobby, albeit including differing perspectives, increased pressure on the UK Government for controls to be placed on problematic drug use. Prohibitionists and medics were able to argue that drug dependency was a disease
process initiated by contact with dangerous substances. The UK Government was happy to comply with such views as it had been engaged in developing international treaties, particularly with the USA, hence the DORA (1916) was extended into civilian legislation in the form of the Dangerous Drugs Act in 1920 (HO, 1920).

Viewing drug use as a medical disease process initiated by contact with a dangerous substance, has since been termed the first disease model of addiction (McMurran, 1994). Under the first disease concept, the only cure was to remove the problematic substance from the reach of a user. Such an approach led to national laws prohibiting the use of alcohol in the USA (1919-1933) and was the foundation for groups such as Alcoholics Anonymous [AA] and Narcotics Anonymous [NA] (McMurran, 1994). Prohibition in the USA, whilst founded upon religious and medical views, soon led to corruption and crime with groups, such as the Mafia, controlling illicit supplies of alcohol (Blake, 2007). In the UK, such stringent controls on alcohol were not instigated at a national level, although at a local level, religious groups involved in urban community developments did oppose the opening of public houses. The medical profession soon realised that state controls on the availability of opiates and cocaine meant that such substances were also effectively banned for medical use. This situation was challenged in 1926 by the Report of the Departmental Committee on Morphine and Heroin Addiction, commonly referred to as the ‘Rolleston Committee Report’ (Ministry of Health, 1926), which established the right of medics to prescribe such substances to their patients who had a dependency (Ashton, 1989). The resulting system, where individuals were administered their drug of addiction by their General Practitioner, has since been called the ‘British System’ of prescribing (Gossop, 2000). Although, as Gossop (2000) pointed out, its initial application was limited to a small number of
‘respectable’ individuals who had developed drug problems after medical treatment or as a result of treatment for injuries sustained through war. Ashton (1989) further commented on the motives behind the Rolleston report stating:

the humanity is there because the authors were talking in a sense of themselves - their own class, often their own profession. At its heart Rolleston was a defence of privilege - of private doctors and their private patients. (p.13)

Thus the Rolleston Committee Report and the subsequent ‘British System’ of treating individuals dependant on the (then) recently banned substances such as heroin, can be viewed in terms of the medical profession successfully lobbying to retain control of the treatment of their fee paying patients. The Rolleston Committee Report was significant in how it “shaped British attitudes to addiction” (McMurran, 1994, p.16), firmly establishing the idea of substance misuse as the manifestation of a disease process, despite a clear rationale contradicting such a position (Davies, 1997).

The birth of the drug clinic

Shortly after the Second World War, the USA began to see outbreaks of heroin use within inner city populations, whereas the UK saw no such patterns of drug use (Seddon, 2006). It was not until the 1960s that increases in the use of drugs amongst young people raised public concern on both sides of the Atlantic. During the early 1960s, various media-fuelled scares linked to the use of LSD and marijuana in the USA, and amphetamine and heroin use in the UK, heightened public concern. At this point, sociological theories on deviancy began to emerge from the Chicago School, challenging the idea that drug
misuse was a product of individual psychology (Shiner, 2009). Such ethnographic perspectives suggested that environmental factors, such as inner city deprivation, contributed to increasing levels of drug use within certain sub-cultural groups (Shiner, 2009). This view of illicit drug use as ‘deviant’ behaviour amongst disengaged individuals or sub-groups of individuals has retained its influence on literature, research, academic and political debate up to current times.

In the USA during the 1960s, the use of hallucinogens and marijuana amongst such ‘deviant’ sub-groups tended to be linked to civil unrest and increasing levels of dissention over the war in Vietnam (McKay, 2005). This view led to increased police powers and the tightening of legislation aimed at curbing drug use. In the UK, media interest and consequently public concern focused on the recreational use of amphetamine amongst young people within the ‘mod’ clubs (Shapiro, 1999). This resulted in tighter controls being introduced over the medical use of the drug and increased police activity aimed at curbing illicit supply and use in the club venues. Media interest then focused on heroin use in the Piccadilly area of London. Davenport-Hines (2001) noted that the established story is that a small number of prescribing medics jeopardised the British system established under the Rolleston Committee Report through their irresponsible prescribing. Whilst two medics, Lady Isabella Frankau and Dr John Petro, received a great deal of media attention over high levels of prescribed heroin given to young dependant users, many medics were more responsible in their prescribing. However, in reaction to the public concern generated by such stories, the Government established the Brain Committee to consider the issue of drug use within sections of UK society. In 1965, the Second report of the Interdepartmental Committee on drug Addiction, commonly known as the ‘Brain Committee Report’ (Ministry of Health, 1965),
recommended overturning the recommendations of the Rolleston Committee Report resulting in the treatment of heroin use being removed from general medicine and placed within Psychiatry as a mental health problem. Such recommendations can be seen as a reactive response to public opinion, changes in the demography (Davenport-Hines, 2001) and increasing numbers of users since the Rolleston Committee report of 1926. McMurran (1997) described this shift in emphasis from the individual disease concept to a sub-cultural deviancy with the potential to spread across society, as the second disease model:

the Brain Committee (1965) compared addiction to infectious diseases that must be declared to the authorities so that action may be taken to control their spread (p.17)

Seddon (2010) confirmed this perspective, pointing out that, whilst medicine firmly remained as the agent of control, public health took precedence over individual pathology as the dominant theme in substance misuse discourse. Medics were required to report patients who used drugs such as heroin to the Home Office, effectively forcing them to become a social monitoring agent (Seddon, 2010).

The second consequence of the Brain Committee Report (Ministry of Health, 1965) was the tightening of legislation in the form of the Misuse of Drugs Act (HO, 1971). The Misuse of Drugs Act introduced the current system for classifying drugs into three bands (A, B or C), with class A considered the most problematic and class C the least. The Act has been amended and updated since it was established in the 1970s, with a growing number of substances covered by the legislation (Harling, 2011). It remains the foundation for legislation
associated with illicit drug use to this day, suggesting differing levels of fines and/or prison sentences for the individuals convicted of offences concerning each of the categories of substances controlled by the act.

The Misuse of Drugs Act (HO, 1971) also allowed some classified drugs to be used in medical care or research. Along with the A, B or C classification, substances are also placed in schedules numbered one to five (Drugscope, 2011), with schedule 1 drugs being the most tightly controlled by the state. Thus the use of heroin (diamorphine), a class A but schedule 2 drug, is easier to sanction in medicine or research, than cannabis, a class B but schedule 1 drug (Harling, 2011).

Despite the Misuse of Drugs Act (HO, 1971) coming into force, drug misuse continued to be viewed as a threat to mainstream society. This perspective was highlighted in the 1980s by a report of the Advisory Council on the Misuse of Drugs [ACMD] (ACMD, 1988), which famously suggested a risk of HIV transmission from drug users to the general public. Adopting such a stance did have some positive effects, leading to a more widespread adoption of such initiatives as needle exchanges in an attempt to reduce the harm posed by illicit drug use. However, the concept of ‘harm reduction’, which evolved from such practices, has been criticised for how it views drug users. Seddon (2010) pointed out that the ethos of such an approach suggests that on the one hand drug users are seen as lacking control over their dangerous behaviour and yet at the same time, able to make rationale choices relating to their own safety. Despite this contradiction, the concept of harm reduction has retained a prominent position within drug treatment discourse.
Within society in general, the 1980s saw the UK move from a reliance on traditional manufacturing activity toward banking and service industries as its main economic activities. During this period, illicit drug use appeared to increase, with growing numbers of young heroin users being reported to the state. Davenport-Hines (2001) stated:

Unemployment and an enveloping miasma of poverty and decay settled over many communities. Drugs became part of the hidden injuries of class discrimination. The link between heroin and hopeless social deprivation (which had first been evident in Scottish cities at the end of the 1960s) became increasingly evident during the 1980s. (p.365)

This rather stark description of the role played by heroin can be contrasted with the abiding 1980s stereotype of a young, wealthy, financial worker using cocaine (Shapiro, 1999). Such contrasts and the possible mixed messages this may have presented to the general public were soon replaced when the outdoor party or ‘rave’ culture began to emerge from 1988 onwards. Large numbers of young people attending such events engendered concern from many angles, from the risks associated with their drug of choice, ecstasy, to the fact that these events were unregulated, un-policed and untaxed. Ultimately, legislation in the form of the Criminal Justice Act (HO, 1991) and Criminal Justice and Public Order Act (HO, 1994) increased the police powers of search and arrest and effectively criminalised such gatherings.
Legislative responses during the late 1980s and 1990s appear to have been more heavily swayed by the media and its effect on the attitude of the general public than by medical opinion, research evidence or more traditional moralistic campaigners, such as religious groups. Manning (2007a) suggested that the press were instrumental in influencing the direction of subsequent legislation, responding to this new sub-cultural phenomenon with a range of stories linked to the rave culture as a threat to traditional societal institutions. Giulianotti (1997) analysed a range of media stories linked to drug use, suggesting a model for situating media stories into four categories (see Figure 1), intersected by two binaries: “the societal/subcultural couplet”; and the “public/private couplet” (Giulianotti, 1997, p.417).

![Figure 1. Typology of media stories focusing on drug use (Giulianotti, 1997, p.419).](image_url)

According to Giulianotti’s model, media stories tended to either centre on positivistic measurements of the current drug problem or on...
descriptions of individual cases. Media discourse could be divided into stories concentrating on drug use within a particular sub-culture or in mainstream society. Stories focusing on drug use within mainstream society tended to concentrate on drug use as a threat to traditional institutions, whereas those looking at subcultures tended to adopt an outsider perspective, voyeuristically looking at the risks taken by some members of society.

The death of Leah Betts after her 18th birthday party in 1995, resulted in a flurry of media interest linked to anti-drug messages (British Broadcasting Corporation [BBC], 2005). Leah’s story can be situated within Giulianotti’s (1997) societal-private category, illustrating the infiltration of illicit drug use into mainstream society and the harm done to the traditional institution of the family (Taylor, 2008). Images of Leah dying in her hospital bed were widely distributed in the media (with her parents’ approval) and have since been noted as an archetypal construct of the innocent victim of the harm resulting from illicit drug use (Manning, 2007a). These images were adopted as a clear message, emphasising the potential risk of ecstasy to the user and the possibility of its incursion from a sub-culture into mainstream society. Professor David Nutt, a former chairman of the ACMD, has since suggested that the anti-ecstasy message presented at the time may have been funded by the alcohol industry (Nutt, 2011). The motivation for this could be seen as recouping lost revenue from ecstasy users who refrained from using alcohol alongside the drug in nightclubs.

The media presented Leah as a bright, attractive young girl, from a stable, happy family background, killed in her prime by tentative explorations into the drug riddled rave sub-culture (Manning, 2007a). In the months after Leah’s death, considerable media interest and
police activity focused upon identifying and convicting the individual responsible for supplying the drug to her (Manning, 2007a). This fixation with bringing the supplier of the drug, who was perceived as killing Leah, to justice had clear parallels with media interest surrounding the court case of Reginald De Veulle who was implicated in the death of Billie Carleton (Kohn, 1992), almost eighty years earlier.

Policy agendas

In the last couple of decades, Government policy in the UK can be characterised by emphasising the link between drugs and crime (Seddon, Ralphs & Williams, 2008). Seddon et al. (2008) viewed this as a policy reaction to emerging patterns of drug use within society, but were at pains to “resist the temptation of making ‘epochal’ claims about an entirely ‘new’ drug policy era” (p.821). Indeed, rhetoric around the link between drugs and crime is not new, as Burroughs (1977) observed:

Weed [cannabis] does not inspire anyone to commit crimes. I have never seen anyone get nasty under the influence of weed ... I cannot understand why the people who claim weed causes crimes do not follow through and demand the outlawing of alcohol. Every day, crimes are committed by drunks who would not have committed the crime sober. (p.18)

Buchanan (2010) noted that the Labour party, who came into power in 1997, were faced with a situation where illicit drug use was undoubtedly more common, not only amongst disenfranchised young people in de-industrialised cities, but also amongst recreational, non-problematic users, such as the young night-clubbers discussed by
Parker, Aldridge and Measham (1998). Initially the issues faced by local communities, such as inequalities and the influence of social exclusion, were considered in the Government’s 10 year strategy (HO, 1998), but as Buchanan (2010) observed, the role of enforcement strategies in eradicating illicit drug use was also emphasised. Linking illicit drugs to crime and other societal issues, such as high levels of unemployment in some localities or a general lack of social cohesion, may have served to raise concern in sections of society otherwise indifferent to illicit drug use. Such links raised the significance of dealing with illicit drug use from an individual to a societal level. Certainly, increases in the public spending on services and responses to illicit drug use characterised the late 1990s and early 2000s, alongside a multi-agency approach to dealing with the perceived threat. A series of orders and interventions, such as Drug Treatment and Testing Orders (DTTO’s), instigated through the criminal justice system, were imposed on individual illicit drug users, who came into contact with the criminal justice system. Such orders were drawn together under the acronym CJIP (Criminal Justice Interventions Programmes) later becoming the Drug Interventions Programme (DIP) (Seddon, 2010). Such orders, which required illicit drug users to undergo compulsory treatment interventions, appeared to cause tensions in treatment services, which had traditionally dealt with service users accessing their services on a voluntary basis (Buchanan, 2010).

In 2005, the instigation of the Drugs Act (HO, 2005), designed to expand the DIP (Seddon, 2010), gave the police the ability to test all arrestees for class A drugs. Arrestees testing positive could be asked to see a drug worker for up to two assessment meetings, whether they were charged with an offence or not, and those who refused such a meeting may have been charged with a criminal offence. Bail
conditions were also more stringent in the case of individuals who provided a positive test result, and agreement to treatment could be set as a bail condition. Several authors (e.g. Boland, 2008; Buchanan, 2010) have questioned this approach on philosophical and moral grounds and, as Seddon (2010) pointed out, the simplistic links between drugs and crime underlying the policy are questionable. Despite a range of criticisms, there is some literature to support the efficacy of such ‘coerced’ treatment. McSweeney, Stevens, Hunt and Turnbull (2007) randomly sampled 157 individuals entering treatment services in South East England, with 57% (n = 89) of those sampled attending through court orders. They stated that those entering treatment due to court orders and those seeking treatment under their own volition were similar in terms of self-reported reductions in drug use and criminal behaviour (McSweeney et al., 2007).

One of the inevitable consequences of coerced treatment has been to increase the number of referrals to service providers, which in turn has required increased funding from the Department of Health and Home Office. The National Treatment Agency for Substance Misuse [NTA], set up by the Government in 2001 to oversee drug treatment in England, reported that funding showed an overall increase from 2001 onwards, although increases in the number of individuals in drug treatment meant that actual funding per individual fell yearly from £3,600 in 2004 to £3,000 in 2009 (NTA, 2010). Methadone maintenance programmes were the main approach to treating heroin users, with the aim of improving their quality of life and reducing the harm caused by illicit drug use (Royal College of General Practitioners [RCGP], 2006). Similarities between the rationale behind these programmes and those underpinning the establishment of needle exchanges in the 1980s are suggested in the use of the term ‘harm reduction’. The NTA suggested the link between drug use and the
amount of crime required to fund a heroin dependency, as a rationale for the substitute prescribing of methadone (NTA, 2003), thus indicating monetary gains for society through reduced crime. Methadone maintenance programmes have been supported nationally by evidence-based guidance from the NTA (2003; 2004), prescribing guidance from the National Institute for Health and Clinical Excellence [NICE] (2007) and the RCGP (2006). However, in 2007, the British Broadcasting Corporation [BBC] reported that “fewer than 3% [of dependent drug users] were drug-free after treatment” (BBC, 2007, p.1). Such figures caused an outcry in the national press and amongst opposition politicians who suggested that this equated to a waste of public funding (Drugscope, 2009). Such overt politicisation of drug treatment resulted in anxiety amongst service providers, as voiced by Drugscope (2009):

It is worrying ... when the media and politicians enter into what are essentially clinical debates in ways that misrepresent the facts and politicise treatment options. (p.11)

Ashton (2008) and Drugscope (2009) raised the concern that the future trajectory of drug services could be influenced by the misuse of evidence in support of a particular viewpoint. Ashton (2008) described how some influential specialists and pressure groups in the substance misuse field appeared to be advocating a move toward a ‘new abstentionist’ agenda. However, even a limited exploration of the history of drug use and service provision in the UK highlights that this situation is far from new. The misuse of evidence and influence of value-laden positions are evident throughout the recent history of social policy and treatment services linked to drug use. Similarities can be noted between the development of the ‘new abstentionist’ agenda and the changes imposed after the Brain Committee Report
(Ministry of Health, 1965). Media interest in a small number of over-prescribing medics focused the attention of the public and politicians on drug use, leading to legislative changes. During the 1960s, drug dependency was generally defined in terms of a disease model (McMurran, 1997), characterised as a medical and therefore treatable condition. Considering drug dependency as a disease that needs to be cured, relates to bio-medical approaches to health. Traditionally linked to medicine and founded upon the insights and breakthroughs gained through scientific research (Taylor, 2003), bio-medical views see the human body as a machine that requires fixing when ill. The main approach to fixing the broken body is through prescribed medicine or surgery administered by a medical professional. Whilst such views are considered outdated by many within the health care professions (Earle, 2005), Taylor (2003) noted that they continue to underpin “the organisation and delivery of health care in contemporary societies” (p.22). Bio-medical perspectives, and in particular arguments around the treatment and recovery from the ‘illness’ of drug dependency, appeared to be a significant feature in ‘new abstentionist’ discourse, echoing arguments from nearly half a century earlier. Aside from arguments around the effectiveness of treatment interventions, there are significant problems in situating drug dependency solely within a bio-medical perspective. Considering drug dependency as a disease process, and drug use as a symptom, fails to explain complex patterns of individual behaviour and the contribution of the social environment (Davies, 1997). In the 1960s, this point, along with perceived irresponsible prescribing by General Practitioners, allowed psychiatry to argue and gain support for the idea that substance misuse should be situated in mental health services rather than general medicine.
Despite widespread concerns over ‘new abstentionism’, the publication of the Coalition Government’s Drug Strategy in 2010 (HO, 2010) was met with some degree of support by many professionals in the substance misuse field (Drugscope, 2010). This was based on the interpretation, reported by The Guardian, that the Coalition Government had decided to shelve “plans for ‘abstinence-based’ drug strategy” (Travis, 2010, p.1). However, despite the fact that the strategy does not wholeheartedly embrace an abstention agenda, there is some note of the move away from the harm minimisation approach prominent in drug and alcohol services over the preceding decade or so. The Drug Strategy (HO, 2010), whilst specifically acknowledging the role of substitute prescribing, also stated that:

for too many people currently on a substitute prescription, what should be the first step on the journey to recovery risks ending there. (p.18)

Thus substitute prescribing is seen as an approach toward achieving a drug free life rather than a goal in itself. However, as Somerville (2011) noted, the previous Labour Government had also wanted to see abstinence as a goal for all those engaged in illicit drug use, but was forced to acknowledge that such a goal was far more difficult for individuals immersed in drug use and living in communities where use was commonplace.

The move toward more recovery focused treatment services was subsequently reinforced by a report commissioned by the NTA (NTA, 2012). Based on a review of existing evidence conducted by a group chaired by Professor John Strang, from the National Addiction Centre, this report concurred with the Coalition Government’s Drug Strategy
(HO, 2010), acknowledging a role for substitute prescribing in the treatment of opiate users. However the report also reinforced a move toward recovery orientated treatment programmes and the integration of drug treatment services with the work of other agencies aimed at supporting this agenda, such as housing and employment services, overtly criticising any simple reliance on maintenance prescribing.

There is no justification for poor-quality treatment anywhere in the system. It is not acceptable to leave people on OST [opioid substitution treatment] without actively supporting their recovery and regularly reviewing the benefits of their treatment. (NTA, 2012, p.5)

In addition to focusing on individuals working toward drug free lives, the Drug Strategy (HO, 2010) re-emphasised the reduction of the supply of illicit drugs through globalised law enforcement and UK focused initiatives, and noted the need to reduce demand, suggesting the role of education and schemes aimed at improving parenting. The strategy emphasised the importance of reducing demand, particularly amongst groups perceived as vulnerable, such as those in poverty and involved in criminal activity (HO, 2010).

A further significant change set out in the strategy (HO, 2010) was the move of drug service commissioning and the function of the NTA into the new Public Health England (HO, 2010). Placing the commissioning of service provision under public health was presented as allowing a more localised system of commissioning, led by Directors of Public Health, aimed at establishing a more competitive tendering system where service providers are rewarded for success
(HO, 2010). However, this approach has been criticised for its potential to encourage local service commissioners to seek lower cost service providers, who may not offer the same level of service as experienced professionals (Independent Scientific Committee on Drugs [ISCD] 2010). Galvani (2012) also noted the possibility that locally determined services could result in wide variations in substance misuse service provision across different geographical locations.

Further criticisms can also be suggested based on the emphasis the Drug Strategy (HO, 2010) places on protective factors such as wellbeing, citizenship and social capital in an individual’s ability to both resist drug use and effectively engage in treatment. Concepts such as social capital are difficult to define and hotly debated in terms of community cohesion (Taylor, 2011). The strategy gives little indication of how such factors can be practically applied to facilitating successful treatment outcomes for individuals dependent on opiates, and public health has been widely criticised for its failure to confront the issues associated with health inequalities (Green & Tones, 2010).

Conflicting perspectives and education

Gaining a balanced perspective on illicit drugs and the treatment of problematic drug use in the UK is far from straightforward, even when appropriate sources of literature are accessed, as opposed to the more subjective views often presented in the media. MacGregor (1999) noted tensions between medical, moral and sociological explanations for drug misuse, which appear to be unresolved over a decade later. Debates still exist around whether to interpret drug use as a structural issue or an individual behaviour choice. Differing explanations and the subsequent arguments around which best fits
an ever-expanding evidence base, along with politics and how the media reports illicit drug use all appear to influence the treatment and care of illicit drug users (MacGregor, 1999).

Health and social care professionals are increasingly required to base their professional practice on the best available evidence from research and other literature sources. This expectation has been acknowledged by regulatory bodies such as the Nursing and Midwifery Council and the General Social Care Council (the governing bodies for nursing and social work). The ISCD (2010) recently criticised the Drug Strategy (HO, 2010), noting that despite the fact that it espouses the use of evidence-based practice (EBP), evidence is overlooked in many of the recommendations it makes. The ISCD (2010) suggested that the Government should return to consulting the ACMD and heeding their advice when developing further amendments to the Misuse of Drugs Act (HO, 1971). This approach would maintain the original ethos behind establishing the ACMD, which was to reduce the influence of political intent in the legislative process (Nutt, 2011). However, such calls appear to have remained unheeded, leading to a potential dilemma for health and social care workers. Nutt, King, Saulsbury and Blakemore (2007) presented rational arguments for a re-categorisation of drugs, noting the health related harms associated with alcohol use and the lack of evidence of harm associated with some of the strictly controlled illicit drugs. Practitioners may be aware of skewed messages linked to the potential health risks associated with the use of a range of illicit drugs, and drugs such as alcohol that remain freely available in the UK. In suggesting the use of EBP and yet publicly ignoring the advice of its own expert advisory committee (the ACMD), the UK Government can be seen as adopting a somewhat contradictory stance when receiving advice in conflict with its political agenda.
The Drug Strategy (HO, 2010) also suggested that improved ‘education and information for all’ (p.10) will contribute to reducing drug and alcohol misuse. The emphasis is on interventions throughout compulsory and post-compulsory education and the implication is that providing accurate information on illicit drugs and alcohol will result in reductions in use. The problem with this approach is that, as has long been recognised in health promotion discourse, clear links between an individual’s knowledge base, attitudes and their subsequent behaviour are complex (Naidoo & Wills, 2005). Health education campaigns have traditionally adopted persuasive roles, attempting to change health related behaviour through scare tactics, such as the media campaigns linked to the death of Leah Betts. Green and Tones (2010), however, have pointed out that health education campaigns can prove to be emancipatory and empowering, “facilitat[ing] the voluntary adoption of health-enhancing behaviour” (p.56). At the time of writing it remains to be seen how the Government’s stated goal to reduce the demand for illicit drugs can be achieved using an educational approach.

Considering the history of drug use in the UK provides some insights into the agendas established by significant lobbying groups at different points in history. The competing views and perspectives from professions, such as medicine and psychology, and a range of other forces have influenced policy and legislation over the course of history. Whilst the focus of concern may change over the years, with different illicit drugs or groups of users becoming the centre of attention, elements of many of the arguments and debates associated with illicit drug use remain. Disagreements around the health risks of drugs, such as cannabis and more recently ecstasy, and the association between heroin use and acquisitive crime have continually reemerged during the last century. It is within such a
confused political and social context that health and social care professionals must practice and, as May (2001, p.149) suggested, “people act and make sense of their world by taking meanings from their environment”. It would therefore be surprising if the current view presented by politicians and reinforced in the media, which tends to present illicit drug users as a risk to the security of law-abiding individuals and a burden on stretched health and social care provision, did not result in many health and social care workers viewing them in a similarly negative light. Daly and Sampson (2012) noted that:

Ours is not a victimless state. It is a pernicious one. It stigmatises Britain’s 380,000 problem drug users for blotting out past horrors and wretched lives with a cocktail of drugs such as heroin, crack, alcohol and valium, it criminalizes otherwise law-abiding people for carrying harmless amounts of cannabis, and it ensures that people’s drug use becomes a stick with which to punish, humiliate or ignore them. (p.4)

Riddell (2012) has suggested that a change in the law leading to the decriminalisation of illicit drugs, would improve attitudes amongst nurses resulting in improved care provision. However, historical perspectives suggest that such a legislative change is extremely unlikely, thus raising the importance of exploring the range of factors currently shaping attitudes towards illicit drugs and drug users in the current study. Such knowledge affords the possibility of improving the care delivered to illicit drug users by nurses (and other health and social care professionals) within contemporary legislative pathways and societal views.
**Nursing**

Competent and knowledgeable health and social care workers have been noted as an essential element in delivering the current Government’s approach to illicit drugs. Whilst there are many different professional groups within health and social care, nurses are currently the largest group trained in the UK each year (Department of Health [DOH], 2008). Student nurses enter training with a wide range of entry qualifications, previous work experience and personal backgrounds (DOH, 1999), therefore, there has been speculation that nurses may be engaged in illicit substance misuse at a similar rate to the general population (Collins, Gollnisch & Morsheimer, 1999; Nursing Times, 1999). Whilst differences in age group and gender mix make comparisons with the general public difficult, Raistrick et al. (2007) reported that 11.6% of qualified nurses in their study had used illicit drugs within the previous 12 months; a slightly higher rate of usage than the 10% reported by the British Crime Survey for the general public (Murphy & Roe, 2007). Despite such diversity and personal experience, there is evidence to suggest that many qualified nurses view individuals who misuse psychoactive substances negatively (Carroll, 1996; Moodley-Kunnie, 1988; Howard & Chung, 2000). Nurses have been reported as holding moralistic, stereotypical and cynical views about drug addiction (Gerace, Hughes & Spunt, 1995) and negative attitudes may result in drug misuse being inadequately managed within healthcare settings (Happell et al., 2002).

Nurses work in a wide range of hospital and community settings, providing care and promoting health, often having considerable contact with the individuals who access the services and facilities in which they are employed. The general principle behind such care should be to adopt a holistic view based upon the patient or service
user’s health needs (Royal College of Nursing [RCN], 2003). Stereotypical and cynical views, linked to working with a particular group, could conceivably create barriers to these individuals receiving the most appropriate level of care they require. Such a possibility appears to be supported by previous research, such as Neale, Tompkins and Sheard (2008) who found that the perceived negative attitudes of medics and nurses created a barrier to accessing generic health care services for a sample of injecting drug users. Additionally, a study by Lind, Kouimtsidis, Reynolds, Hunt, Drummond and Ghodse (2003), noted that patients admitted to a general hospital for reasons unrelated to drug use, could be identified as problematic drug users if appropriately screened. Thus opportunities for health promotion and referral to specialist services were missed and, if the individual’s drug using behaviour impacts upon their condition or reason for admission, there is the possibility of a poorer prognosis in their care (Lind et al., 2003).

**Nurse education**

Improvements in nurse education have been suggested as the simple answer to addressing attitudinal issues amongst nurses working with illicit drug users (Rasool, 1993). In order to fully appreciate the issues facing nurse education and contextualise the problems of integrating a focus on substance misuse into nursing curricula, it is important to consider the history and background of nurse education. Several authors (e.g. Dingwall, Rafferty & Webster, 1988; Baly, 2003) have suggested that the origins of nursing extend over human history, noting the importance of the informal care given to individuals within local communities long before formal systems of support for the sick were established. Blane (2000) linked the development of the profession to divisions in labour that began to be established within the early voluntary hospital system. Initially,
medics employed domestic servants to administer to the daily needs of patients in the hospital setting (Abel-Smith, 1960). The focus of this work was domestic and hence, these workers were considered as servants being paid little more than subsistence rates of pay (Abel-Smith, 1960). In these circumstances, training or education was of minimal importance, simply aimed at allowing the individual to fulfil such a role. With increased technicality in medical care, the division of labour began to change between medics and these domestic assistants. Notable reformers such as Florence Nightingale drew public interest toward patient care during the mid 19th century, paving the way for nursing to be established as a separate profession from medicine. Despite the ever-increasing technical nature of the tasks undertaken by nurses and the distancing of nurses from medics via separate hierarchical management structures, it was not until around the time of the Great War that a register of nurses and a national professional body were established on similar lines to medicine. Despite nearly a century passing since this point, Blane (2000) noted that:

In contrast to the experience of doctors... the professionalization of nursing achieved relatively small increases in autonomy and remuneration. Low pay remains endemic and...the content of nurses’ work is still largely determined from the outside (i.e. by doctors). (p.217)

Several explanations have been posited for the failure of nursing to succeed in professionalisation to the same extent as in medicine, or other professions in health and social care. Lack of a distinctive evidence base from medicine in support of nursing practice has been cited as an important issue, as has a relatively weak distinction between some of the roles conducted by registered nurses and
unqualified healthcare assistants (Annandale & Field, 2003). Further explanations focus on the earlier establishment of medicine as the dominant profession in the healthcare field and the fact that nursing is generally a female occupation, reflected in a lesser social status and lower salaries, as opposed to medicine, which has historically been a predominantly male, high status and well paid occupation (Blane, 2000). Blane (2000) also suggested that there might be a vested interest for the state and employers in halting further professionalisation in nursing. This is due to fact that nurses are the largest group of employees within the NHS, thus the implications of increased pay demands would be substantial. This point has particular importance given the current financial climate and impetus for public sector spending cuts in the UK.

Moves toward increased professionalisation can be seen in the delivery of nurse education in the UK. The first courses in nursing were established in the mid 19th century and consisted of probationary schemes situated within hospital settings. These first training courses were practical in nature with skills learnt on the job “under the watchful eye and rule-making genius of the matron” (Davies, 1980, p.103). Student or probationary nurses were paid a small salary, although they were often required to live within the hospital setting and contribute towards accommodation and living costs. Practical training within hospital settings persisted, albeit in modified forms until the 1990s (Green, 2003). It was not until 1993, when the recommendations of the United Kingdom Central Council for Nursing, Midwifery and Health Visiting [UKCC] (1986), in the form of ‘Project 2000’, changed this system of training. The instigation of Project 2000 enabled nurse education to move into universities. This changed the status of student nurses from trainees within the duty roster of the hospital in which they trained, to true supernumerary
students. Rather than forming part of the staff compliment, student nurses were then placed in practice settings in order to observe and assist with patient care. Qualified health and social care professionals still provided a varying degree of supervision, but set tasks were seen as a learning experience rather than a job role.

The transfer of nurse education into the higher education arena has proved to be far from smooth, with some existing practitioners viewing this as a move away from nursing’s practical skills base (Denny, 2005), and some academics viewing nurse education as outside the criteria of a true academic course (Miers, 2002). In addition to perceived differences between traditional undergraduate subject areas and the mix of academic and practical training provided in nurse education, student nurses are paid bursaries through the NHS during their courses. This sets them aside from undergraduate students studying courses more traditionally based within higher education institutions, particularly in view of increases in tuition fees.

Until recently student nurses received a diploma at the end of their three-year course, although some schools of nursing moved to degree only programmes from 2010. Diplomas in nursing are to be phased out nationally by 2013, with all nursing courses moving to a minimum degree status (NMC, 2009). Commentators such as Ousey (2011) have suggested that such a move would assist in the process of professionalisation, however, given the complexity of issues facing the professionalisation of nursing described by Blane (2000) and others, it is unlikely that such a move alone would contribute much to the process. Problems with professionalisation and difficulties in differentiating the role of qualified nurses from unqualified staff in the day-to-day care of patients is of concern, particularly when noting the considerable amount of public money spent on nurse education and
qualified nurse pay. A recent report for the Department of Health commented:

Nursing and midwifery account for a large share of public spending, including over £13bn spent in 2009 on NHS pay and pre-registration education alone. Despite the size of this spend, relatively little is known about the cost-effectiveness of their work, there is too little evaluation and existing research is often ignored. We simply do not know whether the public gets the best return on this investment. (DoH, 2010, p.3)

In times of proposed public spending cuts, this amount of expenditure, with the perception of little return on investment, appears to place nurse education and nursing in general in a rather precarious position. There is a range of competing factors, alongside maintaining a focus upon the changing nature of nursing as a profession and the role of a nurse in modern healthcare provision, which merit consideration in developing curricula. Thus it is not a straightforward task to simply add a further focus on illicit drug use in nursing curricula or training.

Summary
This chapter has discussed a wide range of literature associated with the key foci of attitudes, illicit drug use and nursing. The study of attitudes has remained a key interest in psychology for some years, however there is still a great deal of debate associated with defining and measuring what remains a rather intangible concept. In addition, illicit drug use is a very contentious topic in the UK with changing views on different substances emerging throughout history. In recent decades the use of illicit drugs has been reported as a threat to public health, linked to an increase in crimes such as theft and in some
instances as a harmless indulgence of the young or wealthy. The impact of influential groups of individuals, such as politicians, the medical profession and the media, on how illicit drug use is seen and dealt with in society, is also significant. Such differing perspectives and society’s legislative response to the use of certain psychoactive substances are likely to influence the attitudes of future professionals and thus how illicit drug users are treated in health and social care settings.

In addition to these external influences on the attitudes of student nurse, there are probable influences on the attitudes of nurses from within the nursing profession. Nursing is an evolving profession, which has only recently moved into higher education from a system where established practitioners, within hospital settings, trained student nurses. Debate remains as to whether nursing should have remained a skills-based profession, with student nurses being ‘trained’ in the practice environment, or moved into higher education.

After considering these broad contextual issues, the following chapter will discuss more specific literature outlining the evidence associated with a range of factors identified as potentially influencing attitudes towards illicit drug use.
Chapter 3: Literature review focusing on the potential factors influencing attitudes towards illicit drugs

This chapter focuses on the literature associated with the factors influencing attitudes to illicit drugs. Whilst there is a paucity of research specifically focusing on the attitudes of student nurses towards illicit drugs, there is a considerable body of literature that adds relevant insights into the topic area and this will be discussed in this chapter.

Theoretical perspectives on behaviour draw attention to the relationship between individual, social and environmental factors and attitudes toward illicit drugs. The ‘Theory of Planned Behaviour’ (Ajzen, 1991), the ‘normalisation’ thesis (Parker et al., 1998) and ‘structuration’ theory (Giddens, 1984; Giddens, 2002) will be discussed. In addition, existing literature has highlighted the influence of a range of factors on an individual’s attitudes toward illicit drug use, including religious affiliation, level of education, drug use in social circles and personal use of illicit drugs. This knowledge aided the design of the current study and informed the development of the specific data collection tools used.

Theoretical perspectives

Psychological perspectives on illicit drug use tend to focus on the individual psyche, considering for example, how current behaviour may be linked to early stages of development. The tendency is to provide an isolated view on why an individual acts in a certain way, given particular situational cues. Simply focusing on the individual can lead to a position where “an essentially linear relationship from the acquiring of knowledge leading to the changing of attitudes, subsequently leading to the changing of behaviour” is assumed
Social psychologists have acknowledged the rather more complex way in which the social world shapes attitudes and modifies behaviour (Smith & Mackie, 2000), developing several models to describe and predict how external factors influence attitudes and behaviour.

The Theory of Planned Behaviour

Models of behaviour change such as the Theory of Planned Behaviour [TPB], have evolved through research and now look beyond the individual’s cognitive reasoning processes when considering behaviour. The impact of the social environment on an individual’s attitudes and behaviour has been increasingly recognised in the ongoing development of the TPB. The TPB has been widely used as a model for predicting many types of health related behaviour, notably substance use. Figure 2 diagrammatically represents the integrated model of behaviour (based on an expansion of the TPB) suggested by Fishbein et al. (2003).

The TPB suggests that an individual’s attitude toward a particular behaviour, their evaluation of the social norms surrounding it and their perceived level of control lead to an intention to act (Ogden, 1996). However, whilst there has been a considerable amount of research and development linked to this model, there are still problems with its ability to predict behaviour (Fishbein et al., 2003). Later additions to the TPB have tended to focus on an individual’s skills and abilities, social influences and environmental factors with the aim of improving the TPB’s ability to predict behaviour.
Despite improvements and additions to the original model proposed by Ajzen (1991), the TPB does not fully explain the relationship between attitudes and behaviour or how social factors influence attitudes. There are problems in measuring nebulous concepts, such as ‘norms’ (Armitage & Conner, 2001) and establishing direct causality between attitude and behaviour. However, there are many studies considering the use of licit substances such as alcohol and tobacco (e.g. Kuther, 2002; Harakeh, Scholte, Vermulst, de Vries & Engels, 2004) and illicit drugs such as ecstasy (e.g. Orbell, Blair, Sherlock & Conner, 2001; Kanayo & Patel, 2004) that have used the TPB as a theoretical framework. Within the TPB, an individual’s attitudes, their perceived level of control and an appraisal of ‘subjective norms’ linked to a particular behaviour all contribute to an individual’s intentions to act in a certain way. Ajzen (1991) defined the ‘subjective norm’ element of the model as “the perceived social pressure to perform or not to perform the behavior” (p.188).
Therefore, such norms are an individual’s subjective appraisal of what is acceptable behaviour within their social circles and the environment in which they find themselves. Armitage and Conner (2001) noted that the influence of subjective norms has proved a contentious area within research based on the TPB. There are difficulties in measuring such an intangible concept, since it relates to an individual’s subjective interpretation of how significant others would expect them to behave alongside an appraisal of the actual behaviour of significant others. As Armitage and Conner (2001) have noted, difficulties in defining and measuring this aspect of the TPB have led researchers to either ignore it altogether, poorly measure it or treat it as a multileveled variable. Considering this element as a multilevel variable requires careful thought when developing measurement tools and in the designing of research studies. Despite such difficulties, there are some researchers who have focused on this variable in more detail and found that this area of the TPB can have a significant influence on intentions linked to the behaviour of interest (Norman, Clark & Walker, 2005; White, Smith, Terry, Greenslade & McKimmie, 2009). Furthermore, in a study considering the factors influencing the decision to smoke tobacco amongst a sample of 1,070 10-14 year-olds in the Netherlands, Harakeh et al. (2004) found a direct link between the behaviour of parents and the onset of smoking. Considering subjective norms in detail, they were able to make the suggestion that “parents have an influence on adolescents’ [tobacco] smoking onset primarily through modeling effects of their own smoking” (p.959). Such conclusions suggest a direct link between the behaviour of significant individuals and the population of interest, thus suggesting the importance of gaining an indication of the behaviour of significant others. These findings suggest the need to gain an indication of how drug use within close social circles influenced the attitudes of the participants in the current study.
Despite the range of issues associated with the TPB, it supports the idea that there are a complex range of interrelated factors surrounding and influencing an individual’s attitudes and behaviour. It reinforces the importance of wider social influences on an individual’s attitudes, including stereotypical views and the stigmatisation of particular behaviours. The extended model, suggested by (Fishbein et al., 2003), also notes the significance of the media in influencing attitudes and beliefs. Thus the TPB highlighted the need to consider a range of social and environment factors, alongside personal experiences and attributes, in the current study, and emphasised the possibility that factors influencing attitudes may be interrelated to each other, requiring multivariate approaches to analysis.

The ‘normalisation’ theory

Whilst the TPB has been associated with a range of health related behaviours, one notable theory that has been applied to and developed specifically to explain the behaviour of groups of young adults linked to illicit drug use is the concept of ‘normalisation’ (Parker et al., 1998). This theory has received a great deal of criticism from a range of perspectives and a number of different authors in the field of substance misuse. The concept of normalisation was suggested “as a way of explaining an unprecedented increase in the drug involvement of young Britons” (Parker, Williams & Aldridge, 2002, p.942). Parker et al. (1998) developed the concept from the findings of a longitudinal capture-recapture study of adolescents and young adults in the North West of England, which began in 1991. Initially, 776 14 year-olds were involved in the study with follow-up surveys completed annually for five years. The sample at Year 5 (18 years of age) consisted of 529 individuals and qualitative interviews were conducted with 86 participants at age 17. Participants were contacted to take part in a follow-up survey in 2000, with 354
participants completing a questionnaire and a further 86 being interviewed (Parker, et al., 2002). Parker et al. (2002) found that at age 22, 76% of their sample had used a substance other than alcohol or tobacco at some point in their lives.

Parker et al. (1998), Measham, Aldridge and Parker (2001) and Parker et al. (2002) used the findings of their research to support the applicability of normalisation as an explanatory concept. Parker et al. (2002) set out five factors influential in the process of normalisation: access and availability; drug trying rates in adolescence and young adulthood; recent and regular drug use; social accommodation; and cultural accommodation of sensible recreational drug use. Evidence from their study was used to support claims, alongside evidence from other sources, such as the British Crime Surveys. The initial phase of the normalisation process was linked with increasing availability of certain illicit drugs in the UK. Increased demand for these drugs was supported by rates of adolescent experimentation and more regular illicit drug use.

Social accommodation referred to an attitudinal acceptance, particularly amongst abstainers or those with limited experimental experiences, that recreational illicit drug use is acceptable or at least tolerable within social circles.

The normalisation of ‘sensible’ recreational drug use requires the non-drug users and users to co-exist socially. If the users are rejected we do not have an important plank of normalisation in place. (Measham et al., 2001, p.7)
In critiquing the concept of normalisation, Shiner and Newburn (2007) considered the findings of their own qualitative study where 52 young people aged between 11 and 16 years of age were interviewed. The study was conducted in the London Borough of Newham, identified as the most deprived local authority in England, and was undertaken at approximately the same period of time as the study by Parker et al. (1998). The main aim of this research was to consider the efficacy of a health education activity focusing on illicit drugs in changing the subsequent attitudes and behaviours of the young people. They concluded that the normalisation thesis exaggerates the extent of illicit drug use and “oversimplifies the ways in which drug use is perceived by young people” (Shiner & Newburn, 2007, p.70). Patterns of disapproval and the participants’ ability to make discriminatory choices to abstain or use a particular drug pointed to the agency of these young people. This recognition that young adults were able to make choices rather than simply follow the social ‘norm’ has been recognised by others considering the use of illicit drugs by young people (e.g. Hunt, Moloney & Evans, 2010). This is rather at odds with the idea of social accommodation, proposed by Parker et al. (2002), where illicit drug use is sanctioned by the acceptance of others in the social environment.

Cultural accommodation, or the “extent to which the realities of recreational drug use are being accommodated in cultural understandings of normality” (p.948), was suggested by Parker et al. (2002) as a further factor in the normalisation of illicit drugs. The concept of cultural accommodation suggests that views linked to the normalisation of illicit drug use have somehow permeated into society beyond the level of the individual illicit drug user. Parker et al. (2002) suggested that evidence for cultural accommodation can be seen in central Government policy and how the media portrays illicit drug
use. Several authors have challenged this view, presenting alternative interpretations of the representation of illicit drugs in the media and the direction of Government policy. Basing his critique at a societal level, Seddon (2010) pointed out that the concept of normalisation can be linked to capitalism and consumption. Illicit drug users may be seen as consumers choosing to purchase a commodity, albeit an illegal one, at increasing rates. Society can either view them as ‘insiders’, members of society who simply exercise their choice to use drugs, as is suggested in the concept of normalisation, or as ‘outsiders’, flawed consumers who are a burden on the rest of society and require some form of correction (South, 1999; Seddon, 2010). Seddon (2010) noted that accepting illicit drug users as ‘insiders’, as is suggested by the normalisation thesis, would prove extremely uncomfortable for many members of society. Classifying illicit drug users as ‘outsiders’, on the other hand, allows them to be constructed as the “perfect ‘suitable enemies’ for society to declare war upon” (South, 1999, p.9).

Manning (2007b) pointed out that normalisation can be criticised because of its lack of an historical view on drug use. Historical perspectives provide evidence that intoxication has been a relatively popular activity in most societies over many centuries. Therefore the question is whether it is appropriate to normalise a longstanding human behaviour that, until recent times, was not considered abnormal (Manning, 2007b). A more recent historical perspective, considering legislation and controls during the 20th and 21st centuries, points to a complex picture of influences, contextual factors and debates (Seddon, 2010) that tend to be overlooked in presenting the concept of normalisation. Huggins (2007) attempted to make some sense of this complicated picture, appraising policy responses to illicit drug use in the UK to ascertain if there was any evidence to support
normalisation. Huggins (2007) concluded that recent multi-agency partnership approaches, aimed at detecting illicit drugs or treating drug users, could be seen as indicating that drug use was viewed as a pervasive issue, requiring a concerted approach encompassing a range of services. However, Huggins (2007) pointed out that this position falls rather short of an overt acknowledgement that illicit drugs have been normalised within society. In addition, Huggins (2007) also noted that an admission of normalisation in the UK would have serious political ramifications, given the UK’s commitment to the control of illicit drugs at a national and international level.

Parker et al. (2002) also suggested that a cultural acceptance of illicit drug use could be seen in representations in the media, with drug use openly portrayed in television drama, film and discussed in the press. However, other commentators have considered media representations of drug use and reached a rather different conclusion. Giulianotti (1997), using an archaeological approach “to get beneath the media’s own excavations on the subject” (p.414), uncovered a far more complicated picture relating to the media’s focus on drug use. Giulianotti’s aim in adopting an archaeological perspective was not to test the validity of the information delivered, but to establish how different statements link together to form a discursive framework. The subsequent categorisation of media stories produced four alternative, and contradictory typologies, of stories presented to the public (see Figure 1, p.25). These differing typologies contradicted the assertion made by Parker et al. (2002) that cultural accommodation has been a feature of media discussions linked to illicit drug use. Giulianotti (1997, p.436) pointed out that the “volume of media discourses on such an issue means that the old certainty of a singular moral position is now outmoded”. Despite adopting differing moral perspectives, Taylor (2008) noted that the media has
often reinforced the UK Government’s emphasis on the link between drug use and crime.

The creation of notions of ‘them’ and ‘us’ has meant that discourse around heroin and crack cocaine has developed which represents the ‘outsiders’ as a threat and a risk to ‘us’ (Taylor, 2008, p.382, italics in the original)

Despite the range of different critiques aimed at the concept of normalisation, there is a consensus within the literature that the relative commonality of illicit drug use, identified within many research samples, including Parker et al. (1998), should be explained from a more complex theoretical perspective. It is therefore important to acknowledge that declarations of illicit drug use, for example by participants in research studies, need to be analysed from a more detailed perspective than simply suggesting that this is evidence of ‘normalisation’ within the sample group. In addition, disclosures of illicit drug use or knowledge of illicit drug use amongst close acquaintances should not be assumed to indicate the acceptance of illicit drug use, as suggested in the normalisation thesis. Critiques of the concept of normalisation also highlight the need to carefully consider the support for any claims and conclusions drawn from research studies; a perspective which was maintained throughout the current study.

**Structuration theory**

In contrast to Parker et al. (1998), Hunt et al. (2010) discussed a range of theoretical perspectives drawn from “epidemiology, sociology, anthropology, cultural studies, and cultural criminology” (p.2) in relation to the findings from their research. Their study had a
similar focus to that of Parker et al. (1998) considering illicit drug use by young people attending dance clubs in the USA. Hunt et al. (2010) interviewed 300 individuals, ranging in age from 15 to 47 years of age (\textit{Mdn}=20), situating their study in the nightlife of San Francisco. In describing their research, Hunt et al. (2010) discussed both macro (structural) and micro (social action) perspectives, in an attempt to explore a wider perspective on their area of study. This approach was seen as novel; a contrast to preceding research in the area of substance use/misuse, which tended to focus on narrow perspectives gained from a particular academic discipline (Hunt et al., 2010). The idea behind using such an approach was to see “young people as active players negotiating their lives with certain social-structural and cultural constraints” (Hunt et al., 2010, p.3).

From a theoretical perspective, Cohen (1989) acknowledged the importance of gaining a holistic view with elements of both macro and micro perspectives, but noted the underlying difficulty of such an enterprise given the “disparate array of theories and traditions of research that currently exist on both sides of the divide” (Cohen, 1989, p.10). Giddens attempted such a task in developing his structuration theory (Giddens, 1984; Giddens, 2002). This theory sought “to reconcile social action with the collective dimensions of social life” (Cohen, 1989, p.10). However, the rather complex and detailed way in which Giddens described and explained structuration theory may reflect the rather challenging aim of the overall endeavour (Cohen, 1989). Fortunately, the basic premise behind the theory is straightforward in its suggestion that neither structure nor action can exist independently of each other and that they are both intertwined. Social action develops structure and structures allow social action through rules and providing resources (McDonnell, Lohan, Hyde & Porter, 2009). The duality of such a view has enabled
researchers who wish to consider substance use/misuse from a more rounded perspective, enabling them to consider the behaviour and the context in which it occurs. In considering aspects of both agency and structure, Hunt et al. (2010) were able to create a broader interpretation of the meaning of substance use for the individuals in their study.

Whilst structuration theory is a useful perspective, taking a holistic view on issues such as substance use, it has been challenged by several theorists. Archer (1996) noted that the actions of an individual are far less able to influence societal structures than Giddens implies. Archer (1996) noted that there are often time differences between the actions of individuals and groups within society and the reaction of social structures and cultures to this action. Hence the link between structure and agency often works on different time dimensions, lacking any real contemporaneous association. Certainly when considering the history of illicit drug use within the UK, this appears to be the case. There are few discernible links between the actions of a sizable proportion of the population and the structural responses of society in general since a focus on drugs, such as cannabis, cocaine and heroin, developed in the early part of the 20th century. This argument would also appear to explain the lack of evidence to support the normalisation theory, as set out by Parker et al. (1998), at a societal level. Clear divisions are evident between the agency of the young adults, in their choice to use certain drugs recreationally, and how social structures adapt to this so-called ‘normalised’ behaviour.

Despite the critical discourse associated with the TPB, ‘normalisation’ and structuration, they do indicate the significance of exploring the students’ attitudes towards illicit drugs from the perspective of the
students’ own personal experiences and the influence of their social environments. The TPB acknowledges that social norms influence an individual’s attitudes, and ideas around structure and agency suggest that individuals have some degree of choice in adapting to their social environment. These theoretical models also suggest difficulties in directly connecting behaviour, such as illicit drug use, to underlying attitudes, highlighting the importance of gaining some measure of social norms towards illicit drugs alongside indications of an individual’s own illicit drug use. However, each of these theories alone was not considered sufficient to explain the phenomena under consideration or to be used on their own as a basis for the current study. It was felt that they could all contribute toward explaining how the students’ attitudes had formed and were adapted during the first year of training, and indicated areas of focus for the current study. In addition to theoretical perspectives linked to the current study it is important to discuss existing research and consider the important insights and approaches suggested by other authors.

**Illicit drug use by student nurses**

One important area for consideration is the limited evidence linked to the use of illicit drugs by student or qualified nurses. No previous studies could be found which identified rates of illicit drug use amongst student nurses in the UK. Whilst, as previously noted, uncertainty remains around the exact nature of the link between attitudes and behaviour in theoretical and research based literature, there is sufficient support for the view that an individual’s attitudes do influence their behaviour at some level. It was therefore considered important to consider the drug using behaviour of participants in the current study.
Many studies have previously considered illicit drug use amongst other groups of university or college students. This may be because, as Berg (2007) noted, students are often seen as a convenient source of data, with academics accessing their students in order to answer a range of research questions, which are sometimes inappropriate to answer using such a sample population. Many such studies have been conducted in the USA (e.g. O’Malley & Johnston, 2002; Sharp & Rosén, 2007), but there are some studies that have considered drug use amongst university students in the UK (e.g. Sell & Robson, 1998), with one of these including a sub-sample of students studying healthcare courses (Webb, Ashton, Kelly & Kamali, 1997). Several factors such as differences in the aims of these studies and the fact that they were conducted some years prior to the current study, limit the importance of their findings. However, despite reservations, some points do emerge from these studies, which are important to note.

In a relatively small-scale descriptive study, Sell and Robson (1998) posted an anonymous questionnaire to 418 Oxford undergraduate students obtaining a 76% (n=318) return rate. Results indicated comparable rates of illicit drug use to a similar age group within the general population. Some socio-economic and social demographic details were measured for the sample population, but results were simply descriptive relating to issues such as rates of drug use and self-reported perceptions of well-being. Webb et al. (1997) handed out anonymous questionnaires to 3699 university students at the beginning or end of a lecture or seminar obtaining a response rate of virtually 100% without reporting any adverse issues with disclosure of illicit drug use. They focused on identifying variations in patterns of drug use between students studying different university courses, finding that prior to entering university, illicit drug use was higher among individuals who subsequently became arts or social sciences
students than those who studied medical or veterinary science courses (Webb et al., 1997). They concluded that “choice of degree course by a student may be influenced by his/her personal characteristics which also affect the type of lifestyle pursued” (Webb et al., 1997, p.149). Whilst this study did suggest differences in background between students studying the different courses included in the study, measurement of these variables and their impact on the students’ attitudes or behaviour were not the main focus of the research. However, Sell and Robson (1998) and Webb et al. (1997) suggested the possibility of measuring the use of illicit drugs amongst student populations and Webb et al. (1997) indicated the effectiveness of handing out questionnaires at the beginning or end of lectures, the strategy adopted for distributing the questionnaire in the current study.

Two published studies have considered alcohol and drug use within samples of student nurses in the USA (Haack & Harford, 1985; Baldwin, Bartek, Scott, Davis-Hall & DeSimone, 2009). The regularly cited study by Haack and Harford (1985) issued anonymous questionnaires to a group of student nurses in a classroom setting (N = 273). The questionnaire was then reissued to the same group of students six months later, using a coding system to obtain a panel sample. Using this system, Haack and Harford (1985) obtained a matched sample of 181 student nurses. Their findings indicated that amongst their sample of student nurses, “the use of marijuana and other drugs was lower than national estimates” for the general population (Haack & Harford, 1985, p.220). However, this study was conducted over 25 years ago and it has been acknowledged that there have been major changes in patterns of substance use within the population and changes in legislation and social policy response in both the USA and the UK since the 1980’s (Shiner, 2009; Hunt et al.,
Such changes are likely to impact on who uses illicit drugs, which drugs and in what context they use them and an individual’s willingness to disclose illegal activities in research studies, rendering comparisons with the findings of studies conducted so far in the past less reliable.

A more recent study by Baldwin et al. (2009) compared three different nursing programmes in the USA reporting a mean rate of illicit drug use of 8.3% amongst student nurses. This study issued postal questionnaires to 2017 student nurses in one state, obtaining a 46% return rate (n = 929). Both studies suggested that student nurses use illicit drugs to some extent, but highlighted the need to measure such use in a more relevant, and in the case of Haack and Harford (1985), contemporaneous sample. This is important if inferences are to be made relating to rates of illicit drug use amongst student nurses in the UK.

Research on illicit drug use amongst qualified nurses

Whilst there is a limited amount of evidence considering illicit drug use amongst student nurses, there is a more developed body of evidence linked to qualified nurses (Bennett & O’Donnovan, 2001). Much of this research is again rather old, with many articles dating from the late 1990’s or early 2000’s and many of these studies were conducted in the USA or Australia, where, as previously noted, legislation and cultural values around illicit drug use differ from the UK. In addition, differences in the definitions and terminology used for concepts such as ‘impairment’, and variations in the measurement of the frequency and type of drug used also lead to difficulties in drawing comparisons. Many of these articles focus on problematic substance misuse, considering the impact of dependency on legal
drugs (such as alcohol) or illicit drugs on the nurses’ ability to function in their professional role (Hutchinson, 1986; Vesy, 1997; Trinkoff, Zhou & Storr, 1999; West, 2002) or upon how job strain may contribute toward the possibility of drug misuse (Collins, Gollnisch & Morsheimer, 1999; Storr, Trinkoff & Anthony, 1999; Trinkoff, Zhou, Storr & Soeken, 2000). Despite reservations around how pertinent the findings of these studies are to the current study and the point that behaviour is not necessarily a reliable measure of attitudes, studies focusing on problematic substance use amongst qualified nurses do support the idea that the spectrum of substance use evident in the general population is also evident in the nursing profession.

In the UK, one study has made some significant comparisons between self-reported illicit drug use amongst qualified nurses and rates for the general public reported in the BCS. Raistrick et al. (2007) used a single phase cross-sectional survey design in order to measure patterns of substance misuse and therapeutic attitudes towards working with substance misusers, targeting 2716 health care staff in the Yorkshire region. Questionnaires were issued to participants through their line managers and 1141 (42%) of questionnaires were returned of which 788 were completed by nurses. Due to the demands of ethical approval, the age of the participants was not collected in this study, so direct comparisons with rates from the BCS were problematic as rates of drug use vary with age. However, Raistrick et al. (2007) found that 11.6% of the qualified nurses reported use of illicit drugs in the previous 12 months, which is slightly higher than the 10% rate of usage reported for the general public in the British Crime Survey for the equivalent year (Murphy & Roe, 2007). This evidence tends to support the
findings of Baldwin et al. (2009) that rates of illicit drug use amongst student and qualified nurses are similar to those in the general public.

Previous attempts have also been made to more closely compare levels of illicit drug use by nurses with demographically matched groups in the wider population. In the USA, Blazer and Mansfield (1995) compared rates of substance use between female nurses ($n = 920$), female clerical workers ($n = 405$) and female workers employed in traditionally male occupations, such as the construction industry ($n = 200$). They found that nurses tended to have higher rates of use than clerical workers, but lower rates than female workers employed in traditionally male occupations, for most of the measures of legal substance use (such as tobacco or alcohol) and illicit substance use (Blazer & Mansfield 1995). These findings may add tentative support to variations found between the attitudes of different groups of health and social workers reported in some studies (Richmond & Foster, 2003; Watson et al., 2006; Raistrick et al., 2007), given the possibility of links between attitudes and behaviour.

A second American study by Trinkoff, Eaton and Anthony (1991), compared current drug use of 143 registered nurses with 1410 non-nurses, matching the sample by demographic details such as age, gender and employment status. Trinkoff et al. (1991) found that “registered nurses reported substance misuse rates less than or equal to a matched sample of non-nurses” (p.174). Rates for cannabis and amphetamine use were marginally lower than those for the non-nurses, whereas rates for heroin and cocaine use were substantially lower (Trinkoff et al., 1991). This could represent genuinely lower rates of use in the nurses, or underreporting due to fears of the occupational consequences of disclosure. Similar concerns have been highlighted in two qualitative studies. Harling (2007) interviewed a
small sample of six professionals in a range of occupations, and Lillibridge, Cox and Cross (2002) conducted qualitative interviews with 12 Australian nurses who had experienced substance misuse problems. Both studies noted the significance of fear of being discovered as an illicit drug user amongst their participants, and Lillibridge et al. (2002) identified the professional impact of admitting to using drugs as a key motivation for avoiding disclosure of problematic substance misuse in their sample of nurses. Such fears were a concern in the current study, necessitating thoughts around how to collect data pertaining to illicit drug use and assess the possibility of underreporting amongst the participants.

The impact of close social networks on illicit drug use

In recent years researchers have attempted to consider the influence of close social networks on an individual’s illicit drug use (Galea, Nandi & Vlahov, 2004). Linked to the TPB there has been an acknowledgement that such information is a fundamental issue in the efficacy of health promotion campaigns aimed at reducing illicit drug use. Such research has often been based within risk discourse and has tended to focus upon the meaning of substance use within specific sample populations, often considered to be high risk in relation to rates and patterns of substance use. Many studies have focused on younger adults or adolescents, as these individuals are often identified as the most likely group to use illicit drugs and are a relatively convenient sample population to access, due to their attendance at institutions such as schools, colleges or organisations like youth clubs or night clubs. Some of these studies have considered the influence of factors in the individual’s social environment and attempted to explain drug-using behaviours or health related attitudes. Such studies, whilst conducted with different sample groups and focusing on a different range of substance use,
often including alcohol use below the legal age limit, do provide some useful points for consideration. In one such study, Allen (2003) issued a questionnaire to a group of 47, 13 to 20 year-olds, attending an inner city youth club in the UK. She reported that 55.3% of the respondents indicated that they had never used an illicit drug (Allen, 2003). However, 71.5% \( (n = 15) \) of those who had never used an illicit drug indicated that they were aware of illicit drug use within close social networks. Allen (2003) reported that existing values within the family were the most significant reason why respondents chose not to use illicit drugs, although some respondents did report that illicit drug use was at odds with their future aspirations or their religious beliefs. Whilst some respondents suggested ‘positive’ reasons for not using illicit substances, such as not wanting to disappoint their parents, other respondents noted the negative impact of drug use on family members as a reason they had chosen not to use illicit drugs (Allen, 2003). In a larger study of teenagers in the UK, Miller and Plant (2003) surveyed a sample of 2641 15 and 16 year-olds from across the UK. Their study focused on alcohol and tobacco use along with illicit drug use, with a range of independent variables measured such as parental attitudes, family socio-economic status and peer behaviour. Data analysis considered the link between these independent variables and several dependant variables including behavioural variables, such as the respondent’s own substance use (illicit and licit) and more attitudinally based dependant variables such as expressions of satisfaction linked to the participant’s own health. Whilst acknowledging the inherent problems associated with suggesting direct causality from the results of a cross-sectional survey, the results suggested a relatively clear link between the influence of peers, levels of parental monitoring and parental attitudes to substances on the adolescents’ substance use and delinquent behaviour, but a more complex picture emerged when considering attitudinal outcomes. Clearly, differences between the
sample populations in Allen (2003) and Miller and Plant (2003) limit the relevancy of their findings to the focus of the current study, however, the results of these studies indicate the need to consider the influence of drug use within family and peer networks on the attitudes of participants in the current study.

**Religious affiliation and the use of illicit drugs**

There is a long tradition of research from the USA (Jang & Johnson, 2001; Sussman, Skara, Rodriguez & Pokhrel, 2006), Canada (Adlaf & Smart, 1985) and the UK (Plant, Peck & Stuart, 1984; Francis & Mullen, 1993; Engs & Mullen, 1999) considering the impact of religion on the use of illicit substances, alcohol and tobacco by young adults. Whilst this research generally measures the use of illicit drugs as the dependant variable of interest rather than attitudes, it does provide some indication of the possible effect of religious beliefs on attitudes towards the behaviour. An initial consideration of the research conducted in the UK and North America indicates a somewhat inconclusive picture, with some studies reporting a link between engagement with religion and reduced rates of drug use (e.g. Engs & Mullen, 1999; Drumm, McBride, Allen, Baltzar & McCoy, 2001) and other studies failing to find a significant link (e.g. Plant et al., 1984; Adlaf & Smart, 1985). However, this lack of clarity appears to reflect disparities in what is actually being measured and variations in the sample populations used in different studies.

One of the main issues relating to religion as an independent variable is how to effectively measure a concept such as a ‘belief’ and then how to differentiate between the impact of this variable and other demographic variables such as age, gender, ethnicity and social background, which may be inter-correlated. Miller (1998) discussed
the problems associated with the measurement of religion and spirituality, pointing out that many scales purporting to measure these concepts consider them in rather tangential ways. Some studies have attempted to measure not only the participants’ self-disclosed religious affiliation, but also attempt to consider levels of engagement in religious meetings and the doctrines of their espoused religion. Measures of religious engagement are often termed ‘religiosity’. Religiosity, as a variable, usually contains some sort of measure of engagement in activities such as the frequency of attendance at religious meetings or self-reported declarations around the importance of religion to the respondent (Gnadt, 2006). Studies that have focused on the link between levels of religiosity and illicit drug use (such as Engs & Mullen, 1999; Drumm et al., 2001; Gnadt, 2006), rather than simply collecting data on religious categorisation as a variable amongst other variables (such as Plant et al., 1984), have generally found a link between increasing levels of religiosity and decreasing use of illicit drugs. However, lack of consensus and different approaches to measuring and defining this concept remain an issue in making comparisons between studies.

In addition to problems in defining and measuring key terms such as ‘religiosity’, there are issues relating to sample populations, which require consideration when comparing studies. Differences in the legislative response to substance misuse and social structures between the USA and UK make comparison difficult. Drumm et al. (2001) pointed out that since the Bush administration, the USA has invested heavily in faith based community initiatives with the stated aim of “curbing or conquering addiction” (Drumm et al., 2001, p.83). Vested interests relating to government funding raises concern over a potential motivation for a ‘Bush science’ approach to research, linking religion to the abstention from illicit drugs in order to justify funding
allocation. Such a possibility appears less likely in research from within the UK. Treatment options such as the ‘twelve-step’ approach, which arguably maintains a religious emphasis with its focus on the influence of a higher power in controlling an individual’s behaviour are available within the UK (Rasmussen, 2000). There are also increasing numbers of agencies outside the statutory health sector, including some that ascribe to religious values, involved in the treatment and rehabilitation of illicit drug users. However, the emphasis of treatment options and service provision in the UK does not appear to generally centre on a particular faith perspective.

One study from the USA considered the impact of religiosity on drug and alcohol use in 241 first year nursing students, studying at seven Schools of Nursing (Gnadt, 2006). This study used established screening tools used in the addictions field, such as the CAGE questionnaire, which has been commonly used in treatment services for assessing the severity of alcohol misuse (Rasmussen, 2000). Religiosity was measured using the Intrinsic/Extrinsic-Revised Scale devised to measure the depth of a respondent’s commitment to their chosen religion and the perceived social benefits of membership in this religion. Chi-squared analysis found that student nurses who were committed to their religious beliefs and “had internalized their religious norms against substance use, were significantly less likely to use substances” (Gnadt, 2006, p.155).

Gnadt’s (2006) study was, however, only conducted within faith-based schools of nursing, specifically Seventh-day Adventist (SDA) colleges and universities. Hence, as was acknowledged by Gnadt (2006), it was difficult to generalise any findings beyond this sample population. Gnadt (2006) noted that the SDA church has strong norms against the use of alcohol and such norms may well have
influenced the participants’ responses. In addition, the approach used in data analysis did not effectively consider the interrelationship between the range of demographic variables measured in the study. Mention was made of the significance of some other variables (e.g. type of program, sibling position and race/ethnicity) and insignificant demographic details such as gender, age and marital status, but several of these variables contained relatively small numbers of cases which would be likely to render cross-tabulation unreliable. Issues in data analysis and the fact that the sample population in this study was obtained from a single faith-based perspective, with 72% of respondents reporting affiliation to the SDA religion, raises issues in making any comparisons with findings from the current study, but indicates that religion is a potential area of interest.

A study by Engs and Mullen (1999) was conducted in the UK and surveyed 4066 students studying for qualifications in the ‘helping professions’. The sample consisted of 3117 females and 949 males and was composed of students studying medicine \( (n = 419) \), nursing \( (n = 813) \), education \( (n = 1212) \), psychology \( (n = 700) \), physical science \( (n = 272) \), social science \( (n = 231) \) and social work \( (n = 159) \), with the remaining students studying law, religion, arts and commerce. Anonymous questionnaires were issued to students in a classroom setting attending courses in 22 university or college departments in five Scottish cities. Engs and Mullen (1999) reported a return rate of 92% using this approach. The study included a greater range of religious affiliations than Gnadt (2006), although 79.4% of respondents were Christian (either Protestant (61%) or Roman Catholic (18.3%)) and only 20.6% stated ‘no religion’ or ‘other’ religious affiliation. Engs and Mullen (1999) asked respondents to state which religion they grew up within and used a four-point Likert scale allowing participants to rate how important religion was.
to them on a scale from ‘very’ to ‘not at all’. This scale was then collapsed to a dichotomous variable of ‘very religious’ and ‘not religious’, however no details were given by Engs and Mullen (1999) about how this was achieved from the results of the four-point scale. They found that “those who were not religious were more likely to consume both licit and illicit drugs” (Engs & Mullen, 1999, p.165), and that Roman Catholics, ‘other’ religious groups and those who indicated no religious preference “were also more likely to use licit and illicit substances” (p.165). Engs and Mullen (1999) reported the same conclusion as the later study conducted by Gnadt (2006), that increased levels of engagement in a religion reduced the use of illicit substances, but also noted differences between religious affiliations within Christianity, finding that Roman Catholics were more likely to use licit and illicit drugs than Protestants. Such studies suggest the need to consider religious affiliation as a variable influencing attitudes to illicit drugs and not to assume that if a person states a religious affiliation they will automatically have negative attitudes towards drugs.

**Level of entry qualification**

Previous studies comparing the therapeutic attitudes of groups of health and social care workers toward working with illicit drug users, identified differences that were ascribed to levels of qualifications attained. Some contradictions are apparent within this evidence, with Raistrick et al. (2007) making the suggestion that individuals with the “least training... had the strongest overall therapeutic attitude” towards working with illicit drug users (Raistrick et al., 2007, p.67), whilst Richmond and Foster (2003) noted that professionals with post-graduate qualifications demonstrated more tolerant attitudes towards working with illicit drug users. However, these studies are not comparable in terms of their design and approach to sampling.
Raistrick et al. (2007) conducted a large-scale cross-sectional survey across six health authorities, assessing the therapeutic attitudes of the participants using a modified version of the Alcohol and Alcohol Problems Perceptions Questionnaire [AAPPQ] (Cartwright, 1980). Richmond and Foster (2003), on the other hand, used a convenience sample of 56 mental health professionals in London, measuring therapeutic attitudes towards working with substance misusers using the SSAAS. These studies suggest the importance of considering the influence of the level of the students’ entry qualification on their attitudes.

Comparisons between health and social care professions

Whilst there are a number of studies that consider the attitudes of health and social care professionals towards working with illicit drug users, there are only a few studies that compare the attitudes of members of different professional groups. The few studies that have compared attitudes (e.g. Richmond & Foster, 2003; Raistrick et al., 2007) identified differences when considering ‘profession’ as an independent variable. Raistrick et al. (2007) made comparisons between healthcare assistants, nurses and medics, and found that healthcare assistants had the most positive attitudes towards working with illicit drug users (Raistrick et al., 2007). Richmond and Foster (2003) surveyed social workers, nurses, occupational therapists, support workers, psychologists and medics, and concluded that social workers demonstrated more tolerant attitudes toward working with illegal drug users than did nurses. These studies focused on professionals employed in healthcare settings and used convenience samples to obtain data from different healthcare professionals within a specific area or service provider. Recruiting participants from a specific workplace setting, whilst convenient, is unlikely to provide an adequate number of respondents from certain professions (such as
medics) for between groups comparisons. In addition the return rate for completed questionnaires reported in Raistrick et al., 2007 was rather low (42%), thus raising some concern over the reliability of results and the study design. However, despite these concerns, these studies indicated that there may be disparities between the attitudes of different health and social care professionals. Authors such as Richmond and Foster (2003) have attempted to provide possible explanations for such disparities. These explanations tend to relate to differences in the emphasis of the different professions. Professions allied to medicine can be seen as holding bio-medical perspectives on illicit drug use, whereas social workers may consider illicit drug use from more sociological viewpoints. There is a suggestion that students who have a less accommodating view on using illicit drugs tend to gravitate toward bio-medically orientated occupations, whereas students who are more accepting of illicit drug use have a tendency toward more social science based occupations, such as social work (Webb et al., 1997). Such a lack of clarity within the existing literature raised the importance of comparing the attitudes of student nurses with other groups of students, such as social work students, and reinforced the importance of measuring attitudes at the very start of the students’ respective courses.

**Changes in attitudes linked to nurse training**

No previous research studies were found that considered longitudinal attitude changes in student nurses toward illicit drug use. However there were two studies that focused on longitudinal changes in moral identity and attitudes towards pain relieving drugs which were felt to provide some relevant insights. Randle (2002) used a grounded theory approach to analysing data from 56 student nurses at the start of their training and 39 student nurses at the end of their three-year course. The focus of the research was on the factors that influence
moral agency and a longitudinal design was employed in order to consider changes in the expression of moral concern over time. Randle (2002) found that student nurses at the start of their training were able to consciously identify treatment, which they had either observed or been involved in, that they felt to be morally right or wrong. Such judgements were seen as being based on their personal feelings rather than any theoretical perspectives gained from their training so far. When interviewed towards the end of their training period, the students appeared to have failed to preserve this morality and were more reticent in expressing moral concern over practice experiences (Randle, 2002). Randle (2002) concluded that the practice environment often demanded “acculturation to a different way of working which can be detrimental to patients, themselves [the student nurses] and nursing generally” (Randle, 2002, p.256).

The second study surveyed the attitudes of 217 student nurses to pain relieving drugs at the start of their training and 203 at the end of the students’ Common Foundation Programme [CFP]² (Allcock & Standen, 1999; Allcock & Toft, 2002). These authors suggested that the greatest change in attitudes were likely to be seen over the course of the CFP. Attitudes to pain relieving drugs were assessed using an adapted version of a standard questionnaire (the Standard Measure of Inferences of Suffering [SMIS]) devised to measure responses to short vignettes describing patient scenarios where respondents were asked to rate levels of pain and psychological distress. Results from the questionnaire indicated that students were likely to overestimate the likelihood of addiction arising from the use of analgesic drugs. This overestimation reduced, but still remained, at the end of the CFP. Interviews were also undertaken with a sample of

² The Common Foundation Programme [CFP] refers to the first twelve months of nurse training where all branches of nursing students (Mental Health, Adult, Children’s and Learning Disabilities) are taught common nursing skills together.
14 students, purposefully selected from their responses to the second questionnaire. Ten of these interviewees were selected on the basis that their perceptions of the risk of addiction to pain relieving drugs had changed the most between the two questionnaires. Based on the findings of these interviews, Allcock and Toft (2002) made the important suggestion that:

There are other more powerful influences than their formal education which shape students’ views on addiction. Students’ attitudes to drugs and to analgesics, in particular, will have developed during their life experiences prior to coming into nurse education. (p.130)

Both studies (Randle, 2002; Allcock & Toft, 2002) indicated changes in the students’ attitudes and how attitudes were expressed during acclimatisation to the professional nursing culture, highlighting the need to gauge if change occurs during training and indicating the importance of gaining a measure of life experiences prior to training.

The role of education

Education is often seen as a method for challenging negative attitudes towards working with illicit drug users (Rassool & Oyefeso, 1993; Norman, 2001a; Rassool, 2004; O’Gara et al., 2005). There are, however, only a small number of articles that describe educational interventions aimed at increasing knowledge or improving attitudes towards working with illicit drug users amongst student nurses or health and social care professionals and even fewer research studies aimed at measuring the impact of such interventions.
Norman (2001b) described an experiential workshop, delivered in the University of Canberra, where groups of student nurses engaged in a role-play exercise as a substance user. The exercise was designed to encourage empathy for individuals using a range of illicit drugs and prescription medication and centred on a set of case studies. These fictitious case studies consisted of a series of life events that were sequentially added to build up an overall picture of living with drug use. The aim of this approach was to allow the student nurses to view the individual’s experiences from their point of view, rather than from the perspective of a medical professional. Norman (2001b) reported good anecdotal feedback from the students who were involved in the exercise. In an article from the UK, Harling et al. (2006) described a student led workshop where a volunteer from a local support agency for illicit drug users described their personal experiences relating to illicit drug use and NHS treatment. The workshop was facilitated by six student nurses and involved 12 of their peers from the same cohort with the main focus being to initiate debate on attitudes towards illicit drug users. The students debated a series of set questions such as “do drug users intentionally lie about their habits?” and “are they manipulative and disruptive?” (Harling et al., 2006, p.39). Harling et al. (2006) suggested that this workshop encouraged open debate and appeared to develop an empathic understanding amongst the group linked to the experiences of the volunteer. Unfortunately, neither Harling et al. (2006) nor Norman (2001b) attempted to measure the impact of the interventions they described on the student nurses’ attitudes either prior to, or after, involvement in these activities.

More concerted attempts have been made to include a focus on illicit drug use in social work education. In a similar fashion to the NMC, the General Social Care Council [GSCC] does not stipulate curriculum content to the level where teaching on alcohol and illicit drug use
would form a compulsory element of the social work curriculum. Substance misuse has, however, been identified as a key issue for social workers, with parental substance misuse identified as a factor in many child protection cases and an important concern for many adults in contact with Social Services (Miskelly, 2010). This acknowledgement of the impact of substance misuse on the social work role appears to have emerged from practitioners as well as educationists. Literature suggests that many qualified social workers feel ill prepared in working with substance misusing clients (Galvani, 2007; Galvani & Forrester, 2008). In order to support improved training for social workers, the Higher Education Academy have produced a range of resources aimed at addressing this issue (e.g. Social Policy and Social Work Subject Centre [SWAP], 2009). However, as with the rather more small-scale approaches described by Harling et al. (2006) and Norman (2001b), the influence of these resources on the attitudes of social workers has not been evaluated to date.

Despite perceptions of benefits from the inclusion of educational interventions aimed at improving attitudes toward working with illicit drug users, there are some articles that raise some doubt over the efficacy of such interventions. Ford, Bammer and Becker (2009) used a modified version of the AAPPQ to measure the therapeutic attitudes of a sample of 1605 registered nurses in Australia. Postal questionnaires returned a 50% response rate from eligible registered nurses on the Australian Capital Territory Nurses Registration Board Role ($N = 3241$). A cross-sectional survey design was employed in order to measure therapeutic attitudes towards working with illicit drug users, more general attitudes toward illicit drug use, professional practice demographics and a more general range of demographic details for each respondent. Linear regression analysis was used to measure the influences of a range of independent
variables on the nurses’ therapeutic attitude (the dependant variable). The authors reported that the findings of their study indicated that workplace education without organisational role support was ineffective in improving qualified nurses’ therapeutic attitudes towards working with illicit drug using patients. Ford et al. (2009) defined role support as having “immediate access to someone who can assist them with personal and clinical issues relating to patient care” (p.117) and workplace drug and alcohol education was simply measured in contact hours. They also acknowledged that this study used a cross-sectional survey design, which is not the most appropriate design when inferring causality (de Vaus, 2001).

In a second Australian study, Happell and Taylor (2001) surveyed a random sample of 106 nurses working in a large private medical/surgical hospital using a questionnaire designed specifically for the study. Attitudes, perceived knowledge and confidence in caring for patients with drug and alcohol related problems were measured using Likert scales and comparisons were made between nurses who had used a liaison service set up by a local drug and alcohol unit and those who had not. Happell and Taylor (2001) used a 6-point Likert scale. A positive response to the Likert scale was awarded a score of 6 and a negative response a score of 1, thus creating a summative score for respondents for each of the three sub-sections of the scale (attitudes, confidence and knowledge). Independent $t$-tests were used in order to compare the mean scores for respondents who had and had not used the liaison service. Happell and Taylor (2001) found that there was no significant difference in the attitudes or confidence of the nurses who had accessed the specialist liaison service and only a small increase in knowledge levels for this group. Whilst definitions of ‘role support’ do not fully match those adopted by Ford et al. (2009), the results of the study by Happell and Taylor (2001) were rather contradictory to the
assertion made by Ford et al. (2009) that role support was the significant factor in improving attitudes toward working with illicit drug users.

Partial support for Ford et al.’s (2009) assertion that the influence of substance misuse education alone may be of limited value can be found in American research by Hayes (2002). Hayes (2002) conducted a study at four nursing schools gaining self-reported levels of knowledge from a sample of 40 nurse lecturers. A group of lecturers from each of the schools of nursing involved in the study then attended a series of three 6.5 hour workshops. The workshop attendees were then expected to return to their respective positions and facilitate an improved focus on substance misuse within their institutions for both academic staff and the student nurses’ benefit. Results for the post intervention survey indicated an improvement in the number of hours of substance misuse teaching in the curricula, but failed to indicate a general improvement in the knowledge base of the staff within the schools of nursing (Hayes, 2002). Hayes (2002) acknowledged a very low participation rate in completing her questionnaire (25%) and the possibility that this could have skewed results. Details of the workshops mentioned by Hayes (2002) were rather too scant to draw conclusions around their possible efficacy, and relying on an informal peer led process for improving the knowledge base of academic colleagues could also be seen as rather unpredictable.

A further study by Munro, Watson and McFadyen (2007) conducted in the UK, also appears to refute the findings of Ford et al. (2009). Munro et al. (2007) conducted a randomised controlled trial with 49 mental health nurses employed in both addiction and adult generic mental health services. Random sampling was used to allocate 24
participants to the experimental group and 25 to the control group, although the sample was stratified in order to ensure equal numbers in each group by workplace background. The experimental group received four days of training on alcohol, drugs and co-morbidity, covering a range of topics such as the physiological, sociological and psychological effects of drug use and attitudes towards illicit drug users (Munro et al., 2007). Therapeutic attitudes of the participants in the study were measured using the Co-Morbidity Problems Perceptions Questionnaire [CMPPQ], an attitude scale, which, like the DDPPQ was developed from the AAPPQ (Cartwright, 1980). The participants’ therapeutic attitudes were measured prior to and after the experimental intervention and then again six months later. Scores prior to the training were not significantly different between the experimental and control group, but immediately after the training and six months later, the experimental group showed significantly more positive attitudinal scores than the control group (Munro et al., 2007). This study had limitations linked to its small sample of specialised mental health nurses, but did present a rather more positive view of the potential impact of educational initiatives on attitudes than was presented by Ford et al. (2008; 2009) and Hayes (2002). Such contradictory evidence, linked to the value of educational interventions in improving attitudes to illicit drug users, emphasises the need for effective evaluation of educational initiatives aimed at improving attitudes.

**The attitudes of student nurses to illicit drugs**

As previously stated, at the time of writing, there was a notable paucity of literature directly focused on the topic of the current study, particularly from the UK perspective. There were, however, a small number of published studies from other countries that had a similar focus to the current study.
An Australian study by Norman (2001a) reported the results of an attitude test carried out on 55 third year undergraduate nursing students. A semantic differential scale was used to test the students’ attitudes to illicit drug users after being shown an image of a drug user in the process of intravenous use. The scale consisted of six opposing words and the participants were required to select a position between 1 and 7 that best reflected their view on the individual in the image (Norman, 2001a). Norman (2001a) concluded that:

a high percentage (42%) of senior student nurses demonstrate a negative attitude towards the individual who uses illicit drugs. (p.87)

However, there were issues with Norman’s (2001a) study that should be recognised when using this study as evidence. Norman (2001a) used a small convenience sample and the scale used in her study did not appear to undergo any form of validation or testing. Participants were shown an image of a drug user using an ‘intravenous substance’ prior to completing the attitude scale (Norman, 2001a). Intravenous use has tended to be characterised as a high-risk activity in terms of self-harm, the spread of infections such as Hepatitis and the risk to the general population through discarded injecting equipment. Such imagery is likely to have initiated an emotive reaction, influencing students toward a more affective response to the attitude object.

In the USA, Baldwin et al. (2009) sampled 929 nursing students attending several universities using a cross-sectional survey design. This study focused on a range of substances including alcohol, tobacco and illicit drugs, reporting rates of use and activities
considered as high risk, such as caring for patients under the influence of drugs. Whilst some inferences were made linking the drug taking behaviour of the students to their attitudes toward alcohol and drugs, the study only really reported rates of use for different substances. Links were made to the effect of family background on the participants’ risk behaviour and the high numbers of respondents (51%) who reported having family members with identified drug or alcohol problems were noted (Baldwin et al., 2009). However, no indications were given around how different variables, other than studying on different nursing courses, impacted on the students’ personal risk behaviour or drug use.

When considering studies conducted abroad, it is important to note that, whilst there are similarities between the social policy response to illicit drug use adopted by many Western societies (MacGregor, 1999), it must be acknowledged that cultural differences may exist in perceptions of drug use and within nursing itself. MacGregor (1999) noted that the USA has historically maintained a moralistic view on certain drugs, whilst the UK has proved rather more pragmatic in its response to the issue. Similarly the nursing profession may also be viewed from a differing perspective, requiring caution when generalising the results of research conducted amongst nurses outside the UK, because, as Bryman (2008) noted, politics and social policy are an important context in which social research operates.

The attitudes of social work students to illicit drugs

One UK study considered the attitudes and knowledge of social work students linked to illicit drug use. Galvani and Hughes (2010) developed a questionnaire for their study, which included sections modified from the AAPPQ (Cartwright, 1980), to explore the attitudes
of their participants. The questionnaire also collected demographic details including the students’ own experiences of substance use, and was designed to measure attitudes towards working with individuals using alcohol and illicit drugs and assess the training needs of the respondents. This questionnaire was employed in a cross-sectional pilot study within the University of Birmingham (UK). It was completed by 121 students with the sample consisting of 43 undergraduate students, 41 undertaking a masters programme leading to qualified social worker status and 36 students on a Children and Family post-qualifying [PQ] social work programme. Galvani and Hughes (2010) acknowledged that further reliability testing and a larger sample of participants, including practitioners from a wider range of practice areas was required in order to validate their questionnaire. They also noted that the inclusion of questions relating to ethnicity and religious beliefs would be desirable in order to ascertain the significance of these variables on the students’ attitudes.

Galvani and Hughes (2010) concluded that the majority of the student and qualified social workers in their sample lacked confidence in their level of knowledge about substance misuse. They noted the significance of the social workers’ and social work students’ perceptions of their knowledge base, support from colleagues in the practice setting and feelings of legitimacy when asking questions about drug and alcohol use. This perspective supports the need for further education around illicit drug and alcohol use in professional education programmes, but also acknowledges the importance of the environments in which practitioners work. Whilst such points are also likely to apply to student nurses and other trainee practitioners, to date there has been no similar research published that specifically focuses on student nurses and illicit drug use.
In general, there has been very little research published focusing on the attitudes of student nurses towards illicit drug use or literature discussing educational approaches in this area of knowledge. However, there are several perspectives evident in the theoretical and research literature that contributed to the design of the current study and informed the development of the specific data collection tools used. A range of factors, reported in existing literature as significant in their impact on attitudes to illicit drug use, were considered and in addition some elements of the design of previously reported studies were incorporated into the design of the current study. The focus on the first year of training for students involved in the current study emerged from previous studies indicating that the CFP was likely to show changes in attitude to a greater degree than subsequent years (Allcock & Standen, 1999; Allcock & Toft, 2002).

**Research questions**

In order to build upon existing knowledge and theoretical perspectives linked to the focus of the current study, it was vital to develop a set of appropriate research questions. de Vaus (2001) described two types of research questions; descriptive questions which ask "What is going on?" and explanatory questions asking "Why is it going on?" (de Vaus, 2001, p.1). Adopting an approach where explanation builds upon earlier description is important in order to ensure that the researcher is clear about the parameters of the phenomenon under study (de Vaus, 2001; White, 2009). White (2009) included comparison as a third typology, placing it between description and explanation in the research process. Whilst acknowledging that drawing comparisons should be an inherent process in social research, White (2009) included it as a separate typology to underline its importance in forming an accurate description of the phenomenon in question. To achieve the aims of
the current study, all three types of research questions were employed. A set of descriptive research questions was developed in order to explore potential influences on the students’ attitudes, comparative groups of students studying to obtain other qualifications in the health and social care field were included in the sampling strategy and a set of explanatory questions were incorporated in order to consider issues linked to the processes involved in nurse education/training.

White (2009) also suggested that main questions could be broken down into subsidiary questions. These may be contributory, adding to the researcher’s ability to answer a broader main question, or ancillary where they enable the researcher to widen the focus of the study and thus include extra pertinent data (White, 2009). White (2009) indicated that a hierarchical approach to constructing research questions might provide order to a set of questions, avoiding confusion between the multiple factors considered in a research study. Such approaches were adopted in formulating the research questions in the current study. The research questions were:

1. What factors influence the attitudes of student nurses toward illicit drug use at the start of their training?
   1.1. Do student nurses with a history of illicit drug use have different attitudes to those with no history of illicit use?
   1.2. Do student nurses with friends or family members who have used illicit drugs have different attitudes to those with no friends or family members who have used illicit drugs?
   1.3. Do student nurses who grew up in an area or environment where illicit drug use was common have different attitudes
to those who did not grow up in an area or environment where illicit drug use was common?

2. How do the attitudes of student nurses, at the start of their training, compare with other health and social care students at a similar stage of higher education?

3. Is there a change in the attitudes of the student nurses that can be linked to their first year of nurse education/training?

3.1. Is such a pattern of change apparent in the comparison groups?

Summary

This chapter has described theoretical perspectives, focused on decisions to use illicit drugs and discussed how these theories have contributed to an understanding of the areas of interest in the current study. The limitation of each theory was also considered, indicating their weaknesses in individually explaining how attitudes to illicit drugs may be formed amongst entrants to the health and social professions.

Existing research, considering a range of variables linked to attitudes and personal use of illicit drugs has also been critiqued. This evidence suggested a wide range of factors potentially impacting on attitudes towards illicit drug use such as social networks, religious belief, level of entry qualification to professional training, choice of profession and education. These factors were all considered important enough to warrant inclusion in the design of the research conducted in the current study.

The chapter then discussed how the research questions were devised for the current study and ended by stating these research questions.
The following chapter will describe the methodological influences underpinning the design of the current study.
Chapter 4: Methodological influences
This chapter will discuss the significant methodological influences on the design of the current study. Hammersley (2011) identified three typologies of approaches to discussing methodology in the social sciences research literature. These three broad genres consist of ‘methodology as autobiography’, ‘methodology as philosophy’ and ‘methodology as techniques’. Hammersley (2010) suggested that all three have their place, but warned against the:

Tendency for methodology-as-technique to encourage proceduralism; the irrelevance and destructive character of some methodology-as-philosophy; and the tendency for advocates of methodology-as-autobiography to downplay the role of general discussion of methodological issues and methods. (pp.41-42)

In order to explore the foundations upon which the current study was based, each of these three broad genres will be discussed.

‘Methodology as autobiography’
From a professional perspective, the author of the current study has worked as a nurse practitioner in the substance misuse field for many years, delivering a range of psychological interventions and medical treatment options to service users presenting with issues related to their illicit drug use. Experience gained through working with such individuals indicated that there was a wide range of social and psychological factors impacting on their use of illicit drugs. Anecdotal reports from service users and the author’s personal experience of collaboratively working with other health and social care professionals indicated that illicit drug users were not always viewed in a positive
light, particularly when accessing more generic health and social care services.

More recently, the author has worked as a Nurse Lecturer in a large school of nursing and as a Senior Lecturer in health and social care, with a focus on interprofessional learning. In these roles he has delivered lectures discussing the physical and psychological treatment available to substance misusers in health care settings and has developed and delivered a module focusing on illicit drug use. Informal discussions linked to these lectures indicated that students were willing to express a wide range of attitudes towards illicit drugs and working with illicit drug users. Group discussions on the topic tended to be very emotive with divergent views being expressed by students within the same cohort. When students raised a personal view on illicit drug use (either negative or positive) they often used anecdotes, recounting the experiences of friends or family or using recent media stories, to support the point they were making. These discussions raised the author’s interest in exploring the origins of different attitudes amongst student nurses. The author felt that such knowledge could prove fundamental to developing educational approaches on the subject of illicit drugs; with the further potential of improving the care received by illicit drug users within a range of health and social care settings.

The author has also undertaken previous research projects within the substance misuse field. Previous research has included the use of a case study approach to examine the injecting behaviour of intravenous drug users in a rural English county, a phenomenological study of professionals who used illicit drugs (Harling, 2007) and a grounded theory study aimed at identifying factors influencing attitudes towards illicit drug use amongst student nurses. These
research studies were important in developing the author’s experience in approaches to collecting and analysing qualitative data and, in the case of Harling (2007) and the grounded theory study, were influential when considering the area of focus in the current study.

At present the author works as a Senior Lecturer in Interprofessional Learning [IPL], teaching a range of undergraduate health and social care students including nursing, social work, occupational therapy and radiography students. Interprofessional learning is credited with the ability to challenge the attitudes and values of different health and social care workers, thus providing a foundation for collaborative working between different health and social care professions (Miers, 2010). Facilitating interprofessional discussions, amongst groups of students studying for different professional qualifications, highlighted apparent differences between the attitudes of professional groups. This insight, alongside evidence from previous research, such as that conducted by Richmond and Foster (2003) and Raistrick et al. (2007), raised the potential significance of comparing the attitudes of student nurses with other trainee health and social care workers. It was felt that such comparisons might add further insights into how attitudes might be improved within the nursing profession.

The author perceived his professional roles within nurse and health and social care education, academic interest in the topic area and previous clinical experience of working in the substance misuse field as positive factors in undertaking the current study, but there were also some negative implications linked to his position. One of the significant factors impacting on the design of the current study related to the author’s position as a nurse. As a registered nurse, the author was fully aware of his responsibilities under the Nursing and
Midwifery Council [NMC] Standards of Conduct, Performance and Ethics for Nurses and Midwives (NMC, 2008), in terms of maintaining the professional image of nursing. Training institutions providing nurse education are required to complete a statement of good character in order to allow student nurses to enter the NMC register of practitioners. The author of the current study was aware that engagement with illegal activity such as illicit drug use constituted a breach of the NMC (2008) code of conduct. In order to maintain confidentiality around experiences linked to illicit drug use, the sample of student nurses for the current study was sought from outside the author’s employing institution. However, some of the participants who were enrolled on social work and health and social care courses were recruited from the author’s employing institution. Despite the fact that the demands of professional regulation did not preclude the use of these students, it remained important to maintain confidentiality and gain informed consent in order to maintain appropriate ethical research standards.

Professional experience in the substance misuse field and in the education of future health and social care workers were significant factors in designing and conducting the current study. Academic interest and teaching experience related to illicit drug use led to a familiarity with the literature base surrounding the focus of the current study and a knowledge of the limited range of evidence linked to the topic area. The rationale for undertaking the current study was to add further insights to a perceived shortfall in the evidence base, which existed at the time of planning the current study, relating to the impact of a range of factors on the attitudes of student nurses towards illicit drug use. The personal interest of the author was undoubtedly significant in developing the focus of enquiry, however,
it is also important to acknowledge broader influences, which impacted on the design of the current study.

‘Methodology as philosophy’

When textbooks consider research methodology, broad philosophical positions relating to truth and knowledge are often presented as a starting point for consideration. However, philosophers have continued to wrestle with such fundamental questions throughout human history, often with little consensus between individual thinkers or schools of thought. Hammersley (2011) also pointed out that there are considerable variations within each school of thought, blurring their boundaries and thus making distinctions between them difficult. Given these issues, it is hardly surprising that philosophical arguments are often rather confused or inaccurate in research literature (Plowright, 2011). However, despite the complexities of such arguments, there are some good reasons for a researcher to develop an understanding of the main points and concepts. 6 and Bellamy (2012) noted that the most important reason is that different philosophical positions suggest different approaches:

When we want to confirm or undermine a model or theory. This is because different philosophical positions give quite different statuses to our claims about inference - that is to our claims to know about things that we cannot directly observe, (pp.49-50)

Ontology (often termed ‘worldviews’) and epistemology are regularly seen as key areas of philosophical debate, however, there is some disagreement around whether differing perspectives on these concepts relate to the actual practice of undertaking research. Denzin and Lincoln (2005), for example, suggested that ontological views
directly support an epistemological position and finally the choice of methods adopted in the design of a qualitative research study. Conversely, Patton (2002, p.136) stated that “it is not necessary, in my opinion, to swear allegiance to any single epistemological perspective” when using qualitative approaches. In more general terms, Hammersley (2011) noted that it was doubtful if broad philosophical positions had much impact on the actual business of research in the social sciences.

Ontology

One of the key ontological debates in the social sciences considers whether a social reality exists outside an individual’s perception and interpretation of that reality. The opposing philosophical positions of ‘realism’ and ‘idealism’ present different perspectives on this question:

realism involves the assumption that there is an external reality, independent of our thoughts about it…This position can be contrasted with idealism (used in its philosophical rather than general sense), which argues that we have no evidence that anything exists outside our thoughts and perceptions. (McDonnell et al., 2009, p.117)

In practice, May (2001) noted that researchers who simply focus on studying how individuals interpret their social world are prone to overlook the influence of underlying mechanisms and structures on what they report. In a similarly restrictive view, researchers who simply focus on social structures may overlook an individuals’ capacity to act against such constraints. Social theorists, such as Bourdieu (1984; 1990) and Giddens (1993), have also acknowledged
that phenomena exist in the real world as well as the mind in presenting their theories.

Adopting a perspective which acknowledged individual perception and interpretation as a descriptor of the social world, but also recognised the possibility that there are shared patterns of behaviour, rules or structures outside individual perception that influence informants, was considered important in the current study. Reviewing relevant literature indicated a wide range of factors, which appeared to impact on the attitudes of student nurses toward illicit drug use. Gaining a broad perspective was felt to be important in answering the research questions set for the current study. The problem with adopting such a position is that, on ontological grounds, it:

Raises an important question. Should we, in fact, talk of there being two realities? On the one hand there is the spatio-temporal, natural world of objects... On the other hand, there is the social world of ideas, relationships and institutions that are the products of human social and psychological experiences. (Plowright, 2011, p.178).

There are authors who suggest that the two perspectives are simply irreconcilable (e.g. Lincoln & Guba, 1985), however, there are also proponents of mixed methods research, (e.g. Lipscomb, 2008) who have suggested that divergent worldviews can be reconciled. In addition to these opposing views, there are authors who have recommended overlooking this unhelpful divide, adopting a pragmatic philosophy concentrating on answering the research questions in the most comprehensive manner possible. Creswell (2009, p.10) noted that “pragmatism is not committed to any system of philosophy and
Epistemology

After briefly discussing broad views on the nature of reality, epistemological issues or “what is regarded as appropriate knowledge about the social world” (Bryman, 2008, p.4) requires some more detailed consideration. Bryman (2008) suggested that the crucial epistemological question in the social sciences centres on how appropriate it is to use processes from the natural sciences in social sciences research.

The adoption of methods used in the natural sciences to the study of the social world is often labelled ‘positivism’ (Bryman, 2008). Whilst positivism can be linked to a range of traditions in philosophy and the social sciences, it shares its interest in the objective study of cause and effect with the natural sciences (May, 2001). Data generation “within positivism is theory-driven and designed to test the accuracy of the theory” (May, 2001, p.11). Bhaskar (1989) pointed out that:

Positivism is, in the first instance, a theory of the nature, limits and unity of knowledge. Particular knowledge is of events sensed in perception; general knowledge is of the patterns such events show in space and over time. (p.49)

Such approaches, particularly when applied to the study of human society and behaviour, have been criticised on several levels. Popper (1979), whilst pointing out that in general the tenants of positivism equate to common sense, raised concerns over the processes used to
verify statements of fact or theory. In considering deductive techniques, Popper (1959) suggested that there should be a move away from a focus of statement verification toward a process where theory must resist falsification in order to remain credible. He argued that even if a phenomenon has conclusively occurred in the past this is not absolute proof that it will continue to do so in the future (Popper, 1991). In order to allow for such indeterminacy, Popper (1979) proposed that science should adopt a more ‘evolutionary’ perspective, accepting that current knowledge is only the best available knowledge and that theories should always be left open to later falsification.

Kuhn (1996) looked at the natural sciences from an historical perspective suggesting that rather than science evolving steadily through progressive development, ‘normal science’ is established where research is “firmly based upon one or more past scientific achievements” (p.10). Kuhn (1996) used the term ‘paradigm’ to signify an organising framework informing an area of scientific enquiry within an area of the natural sciences, although the term has since been adopted in a weaker form to mean a general ‘worldview’ or in some literature to differentiate between qualitative or quantitative approaches to research (Bergman, 2010). In firmly established areas of the natural sciences, scientific ‘revolutions’ occur when the existing paradigm is replaced by an incompatible new paradigm. Kuhn (1996) implied that the current accepted paradigm has a major influence on further enquiry:

The study of paradigms... is what mainly prepares the student for membership in the particular scientific community with which he will later practice. Because he there joins men who learned the bases of their field from the same concrete models, his
subsequent practice will seldom evoke overt disagreement over fundamentals. (pp.10-11)

Whilst Kuhn (1996) specifically referred to the natural sciences, commenting that “it remains an open question what parts of the social sciences have yet acquired such paradigms” (p.15), Teddlie and Tashakkori (2009a) extended this line of thought, suggesting that preferences toward a particular approach of enquiry could be influenced by the ‘cultural’ norms of a particular scientific community within the social sciences.

Other critiques of ‘objectivity’ emerge from axiological positions, where the role of the researcher’s values and biases are emphasised (Creswell, 1998). Foucault (1980) pointed out that knowledge is entwined with power. Power imbalances exist between different members of society and this is often echoed in relationships between a researcher and their subject. Similar issues relating to power imbalances are acknowledged across several approaches to research within the social sciences, such as Feminist research critique (Reinharz, 1992) and Marxist critiques (Greenwood & Levin, 2005). The acknowledgement of power imbalances makes the prospect of the researcher maintaining a neutral, objective stance increasingly unlikely in interactions between researchers and human subjects.

Concerns around the adoption of techniques from the natural sciences and consideration of reflexivity in research design have led to a rise in the use of interpretivism within the social sciences (Bryman, 2008). Interpretivism is often juxtaposed to positivist perspectives in research discourse, although it is not uncommon for the term ‘naturalistic’ to be used interchangeably with interpretivist enquiry.
One of the main problems with the use of the term ‘naturalistic’ is its ambiguity. As Berg (2007) pointed out, the term can refer to positivistic approaches within some literature sources or interpretivism in others. This is due to the fact that positivistic or objective ‘scientific’ research approaches have traditionally focused on studying the natural, physical world. However, interpretivism has a very different origin, founded in anti-positivistic philosophy (Lincoln & Guba, 1985), emphasising the relationship between researcher and subject and the role of ‘subjective’ interpretation in the research process.

However, Bergman (2010) pointed out that there are no clear distinctions between researchers using qualitative or quantitative approaches on epistemological, ontological or axiological grounds. Researchers from either tradition do not necessarily favour a “particular view on the nature of reality” (Bergman, 2010, p.173), how to research it or hold a specific view on the relationship with their subjects. Biesta (2010) further noted that only data can be qualitative or quantitative in nature, “research in itself can be neither qualitative nor quantitative” (p.98, italics in original).

Considering knowledge in terms of its ability to answer questions, rather than focusing on which approach to research (quantitative or qualitative) best represents truth is a central premise of pragmatism (Rorty, 1991; Rorty, 1994). Pragmatism has been situated as the philosophical basis for mixed method approaches to research by many authors (Tashakkori & Teddlie, 1998; Johnson, Onwuegbuzie & Turner, 2007; Feilzer, 2010), although Creswell and Plano Clark (2007) suggested that the approach may be underpinned by a range of emancipatory philosophical positions. Teddlie and Tashakkori (2009b) clearly positioned mixed method research as the third
research ‘paradigm’ situated between quantitative and qualitative research on a continuum of approaches. However, describing mixed methods approaches as an alternative paradigm can be seen as problematic. Since pragmatic approaches do not present a whole view, inclusive of ontological concerns, pragmatism does not necessarily correspond to Kuhn’s (1996) original conceptualisation of a paradigm (Biesta, 2010).

Rorty (1994) stated that the aim of a pragmatic approach “is utility, and there are as many different useful tools as there are purposes to be served” (p.54). This was the emphasis adopted in the current study; generating appropriate evidence and maintaining a focus upon the potential benefits of the current study in terms of insights, which may prove useful in improving nurse education and ultimately the care for illicit drug users in health and social care settings. In practical, rather than philosophical terms, Gorard (2010, p.247) noted that:

Mixed methods, in the sense of having a variety of tools in the toolbox and using them as appropriate, is the only sensible way to approach research.

Positioning theory

Following on from broad philosophical discussions, it is important for a researcher to consider when, and at what level, they engage with existing theory. According to Silverman (2010) theory:

Should be neither a status symbol nor an optional extra in a research study. Without theory, research is impossibly narrow.
Without research, theory is mere armchair contemplation. (p.115)

However, there are difficulties in defining what we actually mean by the concept of a ‘theory’ in the social sciences, and differences in opinion over how theory should link with research. Blaikie (2010) described theories as:

*explanations of recurrent patterns or regularities in social life.* They are answers to questions or puzzles about why people behave in the way they do in particular social contexts, and why social life is organized in the way it is. (pp.124-125, italics in original)

Broad definitions inevitably lead to contradictions and disagreements in the literature around the most appropriate way to categorise and describe theories, and different authors disagree on a range of issues including the nature of society, how it functions and how it should be studied. Kuhn’s suggestion of the immature state of the social sciences, in comparison with the more fully developed natural sciences, may provide some explanation of this issue:

In the absence of a paradigm or some candidate for a paradigm, all of the facts that could possibly pertain to the development of a given science are likely to seem equally relevant. As a result, early fact-gathering is a far more nearly random activity than the one that subsequent scientific development makes familiar… The resulting pool of facts contains those accessible to casual observation and experiment together with some of the more
esoteric data retrievable from established crafts like medicine... (Kuhn, 1996, p.15)

Blaikie (2010) usefully distinguished between two types of sociological theory (‘theoreticians’ theory’ and ‘researchers’ theory’) in order to explain the gap between theory and research which often exists in the social sciences. A critical distinction between the different types of theory occurs at their level of abstraction (Bryman, 2008; May, 2001; Cooper, 2008). Theoreticians’ theory (Blaikie, 2010), or grand theory (Bryman, 2008; Silverman, 2010) as they have been variously labelled, can be characterised as broad ideas or approaches developed to aid our understanding of the social world. Such sociological perspectives as Marxism, functionalism or poststructuralism can be categorised as ‘theoreticians’ theory’. Within this category, theories may vary in their level of abstraction and can focus on either micro or macro levels of analysis (Blaikie, 2010). The more abstract the theory becomes, the more difficult it is to prove its validity by means of research.

In contrast to ‘theoreticians’ theory’, ‘researchers’ theory’ is firmly linked to enquiry and may either be ‘deductive’ where theory is tested by research, or ‘inductive’, where theory is developed from the research process (Blaikie, 2010). In practice the distinction between induction and deduction is often not straightforward (Gilbert, 2008). Layder (1998) suggested that sound theorising should “be a continuous process” rather than situated at “special junctures and/or occasions” (p.25) within social research. Berg (2007) and de Vaus (2002) proposed a cyclical approach where theory can be simultaneously tested and developed as opposed to the linear process indicated by pure deduction or induction. Berg (2007) suggested that
viewing theory before research (deduction) or research before theory (induction) are compatible processes:

In the proposed approach, you begin with an idea, gather theoretical information, reconsider and refine your idea, begin to examine possible designs, reexamine theoretical assumptions, and refine these theoretical assumptions and perhaps even your original or refined idea. Thus with every two steps forward, you take a step or two backward before proceeding any further. (Berg, 2007, p.24)

This cyclical or spiralling method of integrating theory into the research process, as shown in Figure 3, was adopted in the current study.

![Figure 3. The Spiralling Research Approach (Berg, 2007, p.24).](image)

Bryman (2008) noted that social scientists can be dismissive of research which does not have an explicit deductive connection to grand or middle range theory, but pointed out that such research can be directed by the research questions that have arisen “out of an interrogation of the literature” (p.8). Bryman (2008, p.8) further notes that “the literature acts as a proxy for theory” and subsequent stages of data collection and analysis can be aimed at addressing the initial problem or research questions set for the study. Such an
approach is consistent with pragmatism (Creswell, 2009) and was a significant influence leading to the design of the current study.

‘Methodology as Techniques’

The paucity of literature surrounding the focus of the current study led the author to conclude that a mixed method study design would be the most appropriate approach to adopt. Creswell (2009) pointed out the advantage of such designs stating that:

Truth is what works at the time. It is not based on the duality between reality independent of the mind or within the mind. Thus, in mixed methods research, investigators use both quantitative and qualitative data because they work to provide the best understanding of a research problem. (p.11)

This view on research design, maintaining a focus on “the ends to be achieved and the means to be used to achieve those ends” (Rorty, 1996, p.xxv) is clearly linked to the pragmatic perspective adopted in the current study. Such a perspective was important in the current study, with the researcher adopting a research design aimed at providing the best opportunity of answering the research questions and generating knowledge of relevance to developing approaches to nurse education. However, the research design also required consideration in terms of the time constraints placed on the study by the Higher Education Institutions [HEIs] involved, the importance of adhering to appropriate standards of ethical practice and the need to submit an academic thesis within a fixed timeframe.
Mixed methods design

There are several approaches which can be adopted when undertaking mixed method research (Creswell & Plano Clark, 2007; Teddlie & Tashakkori, 2009c), with differences relating to the sequencing of the approaches or the primacy of one approach to data collection over the other (Creswell & Plano Clark, 2007). In terms of the sequencing of the current study, questionnaire data were collected prior to the interviews, as the participants for the interviews were to be drawn from those students completing the questionnaires. Generating quantitative and qualitative data were seen as having equal value, but providing differing perspectives, thus enabling a more thorough answering of the research questions. The strength of the quantitative data set was that it would represent more general perspectives within a larger group of students and therefore add weight to the detail drawn from the qualitative data.

The intention was to draw upon the strengths of quantitative methods in identifying trends and relationships between variables, and the strengths of qualitative data in providing depth and detail. Creswell and Plano Clark (2007) described this as a ‘concurrent triangulation design’. The term ‘triangulation’ has a long tradition within research literature, being used by various authors to signify the use of multiple data sources, different theoretical positions, more than one researcher or different methodologies within one study (Bryman 2008). Creswell and Plano Clark (2007) used the term in connection with the use of quantitative and qualitative data pointing out that:

The researcher attempts to merge the two data sets, typically by bringing the separate results together in the interpretation or by
transforming data to facilitate integrating the two data types during the analysis. (p.64)

Creswell and Plano Clark (2007) suggested that it is possible to quantify data from a qualitative study by, for example, looking at the frequencies of codes or themes raised by informants in an interview. Such data can then be included as a variable in statistical analysis. However, as Bryman (2006, p.257) noted “this kind of quantification of qualitative data is more properly regarded as indicative of a quantitative approach” to analysing the content of an interview, rather than drawing on the strengths of using a mixed methods design. Creswell and Plano Clark (2007, p.140) also noted that “far fewer examples exist of the transformation of quantitative data into qualitative data”. This is understandable since it is rather difficult to see how it is possible to create narrative material, at a suitable level of depth for qualitative analysis, from the answers to questions designed to generate frequencies. In the current study, the quantitative and qualitative data were analysed separately and then integrated into a discussion around their findings, as illustrated in Figure 4.

Analysis of the quantitative data did not occur until after the questionnaires had been completed at the end of the students’ first year, to allow matching of questionnaire data between the two time points. Qualitative data analysis continued alongside conduction of the interviews in order to gain a view on when saturation had been reached.
Despite the separate approach to data collection and analysis, there were links between the two data sets with interviewees being selected from the students who completed the questionnaire. This facilitated the possibility of comparing the findings from both data sets for each of the themes or concepts considered in the current study.

**Summary**

The use of Hammersley’s (2011) three typologies proved useful in providing a broad framework for considering the key methodological concerns in the current study. In discussing ‘methodology as autobiography’ the author described his professional interest in the topic area and motivation behind undertaking the current study, as both a nurse practitioner in the substance misuse field and a nurse educator. In ‘methodology as philosophy’ broader philosophical
debates linked to research were briefly outlined. The important concept of theory and how to incorporate it into the research process was then considered. Finally ‘methodology as technique’ narrowed the focus of the discussion onto the mixed methods approach adopted in the current study.

The following chapter will focus on describing the approaches used to address the research questions set for the current study.
Chapter 5: Research Process

The aim of this chapter is to discuss the processes adopted to answer the research questions set for the current study (see pp.83-84). Careful consideration was necessary in developing appropriate methods of data collection and analysis in order to answer these questions and support any claims based on the findings of the current study. The following sections of this chapter will describe how data were generated and analysed and discuss some of the issues encountered whilst undertaking the current study.

Answering the research questions

Each of the research questions set for the current study required a specific approach and focus. In order to identify the factors influencing the attitudes of student nurses toward illicit drug use at the start of their training (research question 1) data were generated from a questionnaire designed specifically for the current study (Appendix A). This questionnaire was used to provide a measure of the student nurses’ attitudes (dependent variable) at the point of entry into training/education and to provide data pertaining to the factors associated with variations in these attitudes (independent variables).

In addition to generating quantitative data through fixed responses, some space for open-ended comments was included in the questionnaire to allow the students to provide additional comments relating to their experiences around illicit drug use. A series of semi-structured interviews were also conducted in which interviewees were asked to reflect on their experiences prior to entering nurse education, their knowledge of illicit drug use and experiences in the
practice setting (see interview schedule, Appendix B), thus adding depth and detail to the respondents’ perspective.

Comparison groups were required in order to discover how the attitudes of student nurses, at the start of their training, compared with other health and social care students at a similar stage of higher education (research question 2). The decision to use comparison groups was made after considering the existing literature, which indicated that different health and social care professions appeared to hold differing attitudes in relation to working with illicit drug users. Students from each of the comparison groups were also included in the semi-structured interviews allowing between groups comparisons of the qualitative data.

A longitudinal measure was required in order to ascertain if there was a change in the attitudes of the student nurses that could be linked to their first year of nurse education/training (research question 3). This was achieved by repeating the questionnaire at the end of the students’ first year of training. In addition, participants in the semi-structured interviews were asked to reflect on their experiences in the practice environment and comment on the source of their knowledge of illicit drugs. Collecting equivalent data from the comparative groups of students undertaking the other courses represented in the current study, aimed to provide an indication of whether any change might be specific to nurse education.

**Research process**

In order to address the research questions, participants were sought at the earliest possible stage of their course, with further data collection occurring at the end of their first year of training. Allcock
and Standen (1999) and Allcock and Toft (2002) indicated that this period would encompass the greatest change in the student nurses’ attitudes. In addition, since the practice environment and attitudes of existing professionals have previously been highlighted as a significant factor in influencing moral decisions amongst nursing students (Randle, 2002), such an approach allowed the sampling of the student nurses, social workers, midwives and clinical psychologists both before and after practice placement experiences. Practice-based learning, during the students’ first year, was a mandatory requirement of all the professional courses included in the current study. Only the health and social care students did not gain such experience, with practice based learning being offered as an option in the third year of their course. The student nurses engaged in the current study all spent approximately 50% of their course in the practice learning environment and, whilst these placements varied, all of the students were closely monitored and supervised by a qualified mentor. Similar systems of supervision and monitoring were in place for all of the students studying on the other professional programmes. Comparisons were also possible with health and social care students whose course did not contain a professional practice element.

Questionnaires were issued to groups of nursing, midwifery, social work, clinical psychology and health and social care students at the participating HEI’s. All participants in the study were given an Information Leaflet (Appendix C) prior to the start of data collection.

The initial questionnaire was issued to all of the groups of students during their second week of study. It was not possible to collect data during the first week of study as the students were involved in registration and induction activities. Due to variations in the starting
dates for the different cohorts, the initial phase of data collection occurred from September to October 2009. All of the questionnaires were distributed by the author of the current study, to each entire cohort of students attending a lecture, at each of the participating institutions. In order to minimise the disruption to valuable teaching time, students were allocated 15 minutes at either the start or end of a lecture in order to complete the questionnaire. The author of the current study was present during the delivery and completion of the questionnaire in order to explain its purpose, the potential impact of the study in terms of extending the existing knowledge base, and answer any potential queries from participants. Completed questionnaires were then handed back to the author at the end of the allocated time period. In order to maintain the voluntary nature of participation students were advised to hand in a blank questionnaire if they decided not to participate in the study. This approach relied upon the cooperation of the participating HEI’s to identify an appropriate time and location for data collection and the willingness of the lecturer delivering the lecture to allow time to be taken from their lecture. Whilst some students may not have completed the questionnaire owing to absence on the day or decided to return a blank questionnaire, the approach adopted in the current study was used to address the problem of low return rates, which is an inherent issue with questionnaires delivered by post (Simmons, 2008) or electronic methods (Hine, 2008).

The same questionnaire was then reissued to the same groups of students at the end of their first year of training/education. This second set of questionnaires was matched with those collected at the start of the course. This was achieved by comparing each respondent’s answers to the set of three unique identifying questions included in the questionnaire (e.g. ‘what was the name of your first
This approach was used to enable the researcher to provide a longitudinal measure indicating changes in the respondents’ attitudes over their first year of training, whilst maintaining the anonymity of the respondents. No mention of similar approaches to matching anonymous questionnaires in longitudinal studies could be found in existing methodological literature. It is the view of the author of the current study that such an approach has potential for further applications.

In addition to the predominantly quantitative data generated through the questionnaire, qualitative data were sought in order to add detail and depth. This was obtained by providing a space for comments after each question on the questionnaire where further information could provide beneficial insights into the participant’s responses. In addition, a series of semi-structured interviews were also conducted with volunteers from each group of students involved in the study. The schedule used to guide these interviews was developed in order to provide a more detailed account of the interviewees’ perceptions of the factors linked to their attitudes around illicit drugs. The Participant Information Leaflet, issued to all students completing the questionnaire (Appendix C), contained details of the semi-structured interviews.

A separate sheet was given out with each questionnaire at the end of the students’ first year of study (see Appendix A). This sheet asked for volunteers for the semi-structured interviews and a unique code allowed the researcher to match each interviewee with a completed questionnaire. Students completing the questionnaire were advised to complete or discard this additional sheet depending on whether they wished to participate in this stage of the research. An attempt was made to contact all the students who volunteered to take part in the
interviews either by telephone or email to see if they still wished to participate. Some of these students could not be contacted from the details given. For those that could be contacted and agreed, a mutually convenient time and location was arranged in order to conduct the interviews, up to the point of saturation when no more data were perceived to be required. The process involved in generating data for the current study is diagrammatically represented in Figure 5.

**Figure 5.** Flow chart showing the progression of the study.
The questionnaire (Appendix A) was developed for the specific purpose of the current study. An initial requirement of the questionnaire was to measure the attitudes of the participants toward illicit drug use/misuse as the dependent variable. It was intended that this measurement would allow the researcher to gain an indication of differences within and between the groups, as well as the potential measure of change over time.

Questionnaires have previously been developed which aim to measure the attitudes of health and social care workers toward substance misuse. Watson, Maclaren, Shaw and Nolan (2003) developed their Drug and Drug Problems Perceptions Questionnaire [DDPPQ] in order to evaluate the attitudes of a range of healthcare professionals toward working with drug users. The Standardized Substance Abuse Attitude Survey [SSAAS] was developed in the USA by Chappel, Veach and Krug (1985) as a tool for assessing the attitudes of physicians and medical students towards working with substance misusers.

The SSAAS consists of 75 statements designed to measure attitudes on a five-point Likert scale, along with 15 questions relating to personal experience of drug use. Focusing on five factors identified through factor analysis, which Chappel et al. (1985) labelled Treatment Intervention, Treatment Optimism, Nonstereotypes, Nonmoralism and Permissiveness, the SSAAS has been widely used and adapted, in both the USA and UK (e.g. Coleman et al., 1997; Foster & Onyeukwu, 2003). The five factors were all labelled in order to indicate how a higher score (or a more positive attitude) would be represented within the factor. Hence in the factor ‘Nonstereotypes’,
which refers to stereotypical views of drug users, a respondent who scored highly in this factor would indicate disagreement with statements presenting a negative stereotypical view of substance misusers. Similarly the factor ‘Nonmoralism’ indicates avoiding moralistic views in the treatment of substance misuse. ‘Permissiveness’ refers to “a tolerant and accepting attitude toward substance use” (Richmond & Foster, 2003, p.395).

Chappel et al. (1985) considered the two factors, ‘Treatment Intervention’ and ‘Treatment Optimism’ as indicative of a positive attitude towards the treatment of individuals with substance misuse problems amongst medical students and physicians. The remaining three factors (Permissiveness, Nonstereotypes and Nonmoralism) were thought to “reflect more widely held attitudes within the broader community” (Chappel et al., 1985, p.51). Chappel et al. (1985) stated that the importance of these three factors in the treatment of substance misusers was unknown, requiring further investigation.

There are several issues with the DDPPQ and SSAAS, which rendered them inappropriate for use within the current research. The DDPPQ focuses rather heavily on attitudes around treatment efficacy and considers illicit drug users as a homogenous group separate to the healthcare worker. The SSAAS focused on the three more general factors of Permissiveness, Nonstereotypes and Nonmoralism, linked to general attitudes toward substance misuse, but it has been criticised for use in the UK due its bias toward terminology and perspectives from the USA and the fact that it is now rather dated (Watson et al., 2006). A further difficulty in using either of these tools related to the volume of questions and hence the time commitment in completing the questionnaire. The method of questionnaire delivery adopted in the current study, meant that it was not feasible to use a
survey tool requiring more than 15 minutes completion time. The use of a longer questionnaire would reduce valuable classroom time for the participating students, potentially impacting upon their education, and therefore needing greater goodwill from lecturers and participating HEI’s.

Attempts have been made to develop more usable attitudinal scales from those already available. Rassool (2009) presented a 10-item, five-point Likert scale, elements of which appeared to have originated from the SAAAS, however, no information was provided on how this questionnaire was developed or its use in research. In addition some of the attitudinal statements referred to illicit drug use, whilst others were linked to alcohol misuse, rendering the questionnaire unsuitable for the purposes of the current study. A research study described by Raistrick et al. (2007) used a modified version of the AAPPQ (Cartwright, 1980) to investigate the attitudes of health care professionals to drug using patients. This survey included data collected on rates of personal substance use and was limited in length, allowing participants to complete it within approximately 10 minutes (Raistrick et al., 2007). This ease of completion for participants of these scales is an obvious advantage over the SSAAS and DDPPQ. However, this questionnaire focused on therapeutic attitudes to patients in the practice setting rather than taking the broader view of attitudes linked to substance misuse adopted in the SSAAS. This rendered the questionnaire used by Raistrick et al., (2007) unsuitable for the current study. Whilst all of the existing tools have limitations in terms of gauging student nurses’ attitudes toward illicit drug use in general, elements from each and issues raised in their design, application and delivery were considered during the development of the questionnaire designed specifically for the current study.
The first section of the questionnaire designed for the current study comprised of a 10-item Likert scale (see Appendix A), constructed with a focus on the concepts of permissiveness, stereotypical views, and moralistic perspectives, identified in the SSAAS (Chappel et al., 1985). The emphasis of the current study was on the broader influences on the attitudes of student nurses, rather than the willingness of future medics to engage in the treatment of alcohol and illicit drug users, which was Chappel et al’s. (1985) original rationale in developing the SSAAS. This difference in emphasis suggested a clearer focus on the three subscales of Permissiveness, Nonstereotypes, and Nonmoralism, than the two treatment subscales (Treatment Intervention and Treatment Optimism) of the SSAAS considered indicative of future professional interventions by Chappel et al. (1985). Thus the Likert scale for the current study developed from a consideration of the questions used for each of the three relevant categories (Permissiveness, Nonstereotypes, and Nonmoralism) of the SSAAS. Questions were adapted to solely focus on illicit drug use and the terminology was adjusted for a contemporaneous, UK based, sample.

Likert scales are commonly used in the measurement of attitudes and other psychological concepts that are not directly measurable (Bryman, 2008). They consist of a series of statements expressing a particular perspective on the attitude object of interest, in the case of the current study, illicit drug use. Statements are often presented in a way which encourages the respondent to indicate their agreement or disagreement with the statement (Procter, 2008). Likert scales are relatively easy to construct (Procter, 2008) and allow the researcher to compare differences within a sample using statistical approaches. In contrast to simple closed questions, they provide respondents with
a degree of flexibility in expressing their opinions (Cohen, Manion & Morrison, 2011).

Likert scales can be analysed by considering individual items or groupings of items within the scale or by calculating a summative score for each participant (Procter, 2008). Producing a summative score comprising a total gained from the responses given to several related statements is a common approach in analysing responses to Likert scales (Polit & Beck, 2006). However, despite the fact that Likert scales are used in many areas of research, particularly around the measurement of concepts such as attitudes which cannot be directly measured, their use needs to be viewed with some degree of caution. Clarke-Carter (1997) noted that generating a summative score from a Likert scale is problematic because it is not possible to differentiate between respondents with the same score but a different pattern of responses and thus “we cannot treat a given score as having a unique meaning about a person’s attitude” (Clarke-Carter, 1997, p.96). Gorard (2003) suggested that such scales “should only be used when a single or even a proxy (substitute) measure is not possible” (p.108). Despite these shortcomings in measurement, since the focus of the current study was on the attitudes of the participants and a single measure was not possible, a Likert scale was deemed the most suitable approach to adopt.

There are several issues that require further consideration in deciding to adopt a Likert scale as a measurement tool. The data they provide are only ordinal in nature, which could be seen as placing restrictions on the types of analysis possible. According to Cohen et al. (2011), such data should be analysed “using modal scores and non-parametric” techniques (p.390). However, as Miles and Shevlin (2001) pointed out, there is “a (very) fuzzy line between what can
definitely be called ‘ordinal’ and what can definitely be called ‘interval’” (p.61). Miles and Shevlin (2001) noted that strict adherence to defining data as ordinal or interval would be extremely limiting for social sciences research and “we would almost never be using regression” (p.62). They suggested a rather more practical decision based on whether the measurement can be seen as close enough to scale or interval data to conduct analysis such as regression (Miles & Shevlin, 2001). Miles and Shevlin (2001) indicated that more categories of response are better, with at least seven proving sufficient to see data as an interval scale. This was the case in the current study, thus indicating that the attitude score could be treated as interval data for the purpose of analysis.

In addition to the inherent issues associated with Likert scales, there are extraneous factors which may influence the responses of participants completing a questionnaire. Participants may provide answers in keeping with prevailing social views or there can be a tendency to simply respond to a question without regard for its content (Polit & Beck, 2006). In the current study, the completion of the questionnaire within a classroom environment in the presence of fellow students, may have influenced the responses of participants towards the prevailing views of their class group. Whilst asking students to complete the questionnaire in private may have alleviated this issue, it is likely that it would have resulted in far lower return rates and proved extremely difficult to facilitate, given the number of students and different institutions involved in the current study.

In order to encourage participants to read and consider each statement before responding, scoring was reversed for some items on the Likert scale. This is a common technique in the construction of Likert scales (Clarke-Carter, 1997), requiring participants to indicate
agreement with some statements and disagreement with others in order to present a consistent attitude. It aims to avoid the “tendency by a given person to use one side of the range of responses” (Clarke-Carter, 1997, p.94).

When designing Likert scales there are differences in opinion between authors who recommend three, five, seven or even more points on a scale (Clarke-Carter, 1997). The most common approach is to use a five-point scale (Bryman, 2008; Polit & Beck, 2006) although it is not unusual to collapse scales to simply indicate agreement or disagreement when reporting results (Cohen et al., 2011). A classic study by Jacoby and Matell (1971) issued an established Likert scale to 360 undergraduate students with a range of between 2 and 19 responses. They found no difference in re-test reliability or validity between the different formats, suggesting that researchers would be justified in scoring Likert scales dichotomously (or three-way with a neutral point) (Jacoby & Matell, 1971). Gorard (2003) supported this view on the basis that it is very difficult to argue that there is a discernable difference between two points with the same bearing such as agree and strongly agree. There is also some debate over the need to introduce a neutral point between agreement and disagreement with a statement (Albaum, 1997). Clarke-Carter (1997) noted that failing to provide an option for respondents who may be undecided on how to respond might reduce the reliability of the measure. Muijs (2011) noted that neutral points can be ambiguous, encouraging respondents with a genuinely mid-range view, those who do not wish to comment, those who do not understand the question or those who simply select the middle point for convenience to choose this option. Muijs (2011) suggested that such problems could be partly reduced by placing ‘don’t know’ at the end of the scale, not in the middle. Such points were noted in
constructing the Likert scale for the current study, influencing the
decision to adopt two opposing positions (‘agree’ and ‘disagree’) and
providing options for respondents to differentiate between selecting
‘don’t know’ and ‘don’t want to comment’ after the two weighted
options. Providing the two options ‘don’t know’ and ‘don’t want to
comment’ was felt to be important as it allowed an option for
students who were genuinely unsure about how to respond to a Likert
statement and an option for students who did not wish to comment
for other reasons. Given the facts that the questionnaires were
completed in the presence of the students’ peers and that the Likert
statements questioned attitudes towards illicit drug users, ‘don’t want
to comment’ was viewed as an important option for students who did
not wish to express their opinion.

Independent variables

The second section of the questionnaire was aimed at generating data
linked to the possible factors influencing the students’ attitudes
towards illicit drugs (independent variables). These factors were
identified from existing literature (see Chapter 3, pp.45-82) and, where possible, questions designed in order to draw comparisons with existing research.

Initially a set of questions focused on demographic details, including
sex, age and religion, identified as factors influencing drug-using
behaviour, were included in the questionnaire. Participants’ were
asked about their history of illicit drug in question 16 of the
questionnaire (Appendix A), which used the same categories as the
BCS (Hoare & Moon, 2010). Seven drugs were listed and four options
given for each drug ranging from ‘never tried’ to ‘used this drug in
the past month’ (see Figure 6), with the participants being asked to tick one option for each drug.

<table>
<thead>
<tr>
<th>Type of Drug</th>
<th>I have never tried this drug</th>
<th>I have tried this drug once/a few times in the past</th>
<th>I have used this drug in the past year</th>
<th>I have used this drug in the past month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amphetamine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cannabis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cocaine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ecstasy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heroin</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LSD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ketamine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Figure 6. Response grid for question 16 indicating personal drug use.*

The influence of illicit drug use by friends and family members, and the perceived commonality of illegal drug use in the area or environment in which the respondents grew up, were measured by a dichotomised yes/no response (questions 17 and 18 on the questionnaire). A third category, ‘don’t want to comment’, was added to the question about drug use by friends and family members in order to allow an option for those respondents not wishing to acknowledge the use of illicit drugs amongst close social acquaintances and family members. In addition, a fourth ‘don’t know’ option was added to question 18, after discussions at the piloting stage of the questionnaire where participants felt that there could be individuals who, for a range of reasons, were unaware of illicit drug use in the locality in which they grew up.

Whilst simple measures, such as dichotomised response questions, do little to provide depth or detail on the social and environmental factors influencing the respondents’ attitudes, more detailed information focused on these factors was collected in the interview.
element of the study. In addition to each tick-box, space was included in the questionnaire to allow the students to comment on their experiences of illicit drug use. The questionnaire also asked students to identify the frequency of their contact with illicit drug using patients/clients in the practice environment and whether they felt that illicit drug users were thought of, and/or treated, differently to other patients. The students were also asked to identify the number of hours they had spent being taught about substance misuse on their current course and to identify if they had received any other education linked to the topic. These questions were included in the questionnaire in order to assist in identifying any factors which may have impacted on changes in attitudes between time points A and B. Additional space was included in this set of questions in order to allow the students to expand upon their answers.

The questionnaire was reviewed by a group of nursing students and academic staff, prior to its use in the current study, and its test-retest reliability checked with a group of 85 social work students. A description of the process adopted and the results of these tests are provided in Appendix D.

**Questionnaire sample**

Participants in the current study were recruited from four different HEI’s, offering appropriate courses, spread over five geographical locations within the Midlands area of the UK. A further three HEIs were approached that offered nurse education, and whilst ethical approval was obtained from these institutions, it was not possible to collect data at these sites due to academic staff barring access (see discussion on ‘gatekeepers’ on p. 157). Previous studies have
suggested differences in the attitudes of different groups of health and social care workers (Richmond & Foster, 2003; Raistrick et al., 2007). Whilst these studies focused on professionals employed in healthcare settings, they support the selection of comparison groups in the current study. Using the SSAAS, Richmond and Foster (2003) measured differences in attitudes between social workers and nurses, with social workers having more permissive attitudes towards licit and illicit drug use than nurses. Richmond and Foster (2003) and Raistrick et al. (2007) reported differences in the attitudes of different health and social care professional, which they ascribed to level of education. However, Richmond and Foster (2003) reported that professionals with the highest level of qualification had the most positive attitudes, whereas Raistrick et al. (2007) found the opposite situation. These discrepancies may reflect differences in the attitude scale used in the respective studies, differences in the sample size between each study or the fact that Richmond and Foster’s (2003) study only included mental health professionals and Raistrick et al. (2007) surveyed professionals working in a range healthcare settings. Potential differences in attitudes based on level of education, was the rationale for the inclusion of clinical psychology trainees in the current study, who were all graduates prior to commencing their clinical psychology doctorate.

Seven full cohorts of students were involved in the current study, consisting of two groups of nursing, two groups of midwifery, one group of social work, one group of clinical psychology and a group of health and social care students. These courses were selected to give a range of students studying for professional and non-professional qualifications in health related topics, to include students studying at undergraduate and postgraduate levels and students studying professional courses linked to social and health care. Convenience
sampling was used to obtain a sufficient number of cases for data analysis. Field (2009) suggested a ‘rule of thumb’ of 10-15 cases for exploratory factor analysis, and Miles and Shevlin (2001), whilst noting that a power analysis is the preferred option, suggested between 10-20 cases per variable in order to obtain a sufficient sample for regression analysis. These figures were used in estimating the number of nursing students required, with a similar overall number in the comparison groups. The numbers of completed and matched questionnaires for each cohort are presented in Table 1.

In addition to estimating the number of cases required for the planned approach to data analysis, it is also important to consider the possibility of non-responders and missing data when estimating the numbers of cases required for a particular study. Gorard (2003) noted that one of the main aims in study design is to achieve an appropriate sample and “minimize any non-response” (p.75).

<table>
<thead>
<tr>
<th>Table 1. Numbers of completed questionnaires</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohort</td>
</tr>
<tr>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Part-time, post-reg midwifery students</td>
</tr>
<tr>
<td>Full-time, pre-reg midwifery students</td>
</tr>
<tr>
<td>Student nurses (site 1)</td>
</tr>
<tr>
<td>Doctorate in Clinical Psychology trainees</td>
</tr>
<tr>
<td>Student nurses (site 2)</td>
</tr>
<tr>
<td>Social work students</td>
</tr>
<tr>
<td>Health &amp; social care students</td>
</tr>
<tr>
<td>Total numbers of other students</td>
</tr>
<tr>
<td>Total numbers of student nurses</td>
</tr>
<tr>
<td>Total (all students)</td>
</tr>
</tbody>
</table>

123
In the current study, full cohorts of students were included for each of the selected courses and all of the students enrolled in that particular year were eligible to participate. However, not all students may have attended on the days of data collection and for ethical reasons it was not possible to collect data from those who did not attend.

There are two studies described in the existing literature, which used the same approach to collecting questionnaire data as the current study. Engs and Mullen (1999) distributed 4,500 questionnaires at three universities in the UK. Their convenience sample included medical, nursing, psychology and social work students, for their study focusing on the links between drug use and religiosity. Students completed the questionnaires in the class environment and then returned the questionnaires to the researcher. Using this process Engs and Mullen (1999) gained a 92% completion rate with questionnaires, which were returned blank, being seen as the students exercising their right to not participate in the study. Similarly, Webb et al. (1997) issued 3699 questionnaires to students attending lectures on a wide range of courses within ten UK universities. The questionnaire asked the students to identify their smoking, drinking and illicit drug using behaviour and gained return rates of almost 100% (Webb et al., 1997). These studies led the author of the current study to conclude that similar return rates were possible in adopting the same approach to data collection.

In the current study the numbers of students attending the particular taught sessions where data collection took place was noted during each instance of data collection. The professional courses involved in the current study had an expectation that enrolled students attend all lectures and the practice elements of their course. The exception to
this was the health and social care students, where there was no attendance requirement for the lecture in which data collection took place. Since data collection for the current study was undertaken as part of a timetabled lecture, any students who did not attend on the day of data collection were not necessarily simply opting out of the current study. Therefore there is no indication that the view of these students would have differed from those that attended on the day.

As in the research conducted by Webb et al. (1997) and Engs and Mullen (1999), the option for those students who chose not to be involved in completing the questionnaire was to opt out of completing sections of the questionnaire or return a blank questionnaire. This approach to data collection resulted in 100% of the students returning a questionnaire at the start of the students’ course and only 1 student declining to fill in the questionnaire at the end of the first year, which equated to a response rate of 99.6%. Not all of the students completed all sections of the returned questionnaires.

The numbers of completed questionnaires were generally lower at the end of the first year of the students’ respective courses, with the exception of health and social care students (see Table 1, p.123). This increase in the numbers of health and social care students was due to the fact that a number of students enrolled late on this non-profession specific course or moved courses within the institution where data collection took place. The reduction in student numbers on the profession specific courses at the end of the first year of training reflected the numbers of students leaving the course, rather than any decrease in questionnaire return rates. Reasons for leaving a course are likely to be varied and due to ethical reasons it would not have been possible to collect this information.
Interview sample

Sampling techniques and size can vary greatly within qualitative research depending on the overall philosophy of enquiry, approach to data analysis and the particular focus of the study (Creswell, 1998). Kvale (1994) noted that:

To the common question "How many interview subjects do I need?" the answer is simply "Interview so many subjects that you find out what you need to know." ...new interviews are conducted to a point where further interviews yield little new knowledge (p. 165)

The approach used in the current study was to recruit participants for the semi-structured interviews until each of the themes and concepts explored were considered to be ‘saturated’. Saturation is a commonly used term within grounded theory research. Strauss and Corbin (1998) suggested that it is reached when “no new properties, dimensions, conditions, actions/interactions, or consequences are seen in the data” (p.136). However, saturation is a contested idea, even within grounded theory (Charmaz, 2006; Hood, 2007) where it is central to the validity of any theory developed from the data. Strauss and Corbin (1996) acknowledged that decisions around saturation are often subjective, influenced by time or funding limitations. The nature of grounded theory enquiry also means that if the researcher looks hard enough they are usually able to identify further concepts relevant to the area of study (Strauss & Corbin, 1996). Clearly focusing on the original research questions and concepts of interest limited these issues in the current study, allowing decisions around saturation to be based upon the content and dimensions of the data set.
Participants were sought from within the student groups who completed the questionnaires. A total number of 93 students volunteered to take part in the interviews. This group consisted of 44 student nurses, 13 social work students, 13 health and social care students, 10 pre-registration midwifery students, 9 clinical psychology trainees and 4 post-registration midwifery students. Students who agreed to be interviewed were contacted via the contact details given when completing the extra form attached to the questionnaire (see Appendix A). Not all of the students who agreed to take part in the interviews were contactable by the phone numbers or email addresses they had provided and some of those who had agreed to be interviewed were unavailable when offered times and locations to be interviewed. The author continued to contact potential interviewees to arrange further interviews, until data saturation was reached. Continuing to collect data until in the author’s view, data saturation had been reached, was felt necessary to ensure variation in the accounts of informants. The uniqueness of the accounts of the participants was considered to be a key attribute of the qualitative data, helping to add depth and context to how the students’ attitudes had evolved. Kvale and Brinkmann (2009) pointed out that the ability to contextualise phenomena has been viewed as a key rationale for the use of qualitative approaches. In addition, the author ensured that there were interviewees from all of the different cohorts of students involved in the study, which resulted in approximately 10% of each sub-group being interviewed. A slightly higher percentage of social work students (16.7%) were interviewed in order to more fully explore the possibility, suggested by Richmond and Foster (2003), that workers from less bio-medically orientated professions, tended to indicate more permissive views toward illicit drug use. This approach to selecting students resulted in interviews being conducted with 25 students; 10 student nurses, 7 social work students, 4 health and social care students, 2 clinical psychology trainees, 1 pre-registration
midwifery student and 1 post-registration midwifery student. The sample consisted of 6 male students (24%) and 19 female students (76%) and their ages ranged from 19 to 46.

It is acknowledged that there are a range of motivations leading to individuals participating in qualitative research interviews (Clark, 2010). These motivations can include personal reasons such as subjective interest in the topic area, or social reasons such as wanting to influence changes in service provision (Clark, 2010). Whilst it is accepted that such motivations may result in individuals presenting a very specific perspective on the topic of interest, the fact that the interviewees were all drawn from the student cohorts involved in the current study, meant that such perspectives were viewed as informative and relevant in terms of the focus of the current study.

Principal Component Analysis [PCA] of the Likert scale
As an initial stage in data analysis an exploratory PCA was conducted on the ten elements of the Likert scale in order to investigate the properties of the scale used in the current study. PCA measures the contribution of each variable and identifies groupings of variables, which form underlying components (or factors), describing a proportion of the variance identified by the full set of variables under investigation (Pallant, 2010). Since the Likert scale used in the current study was not an established survey tool and the concept of interest (attitudes towards illicit drug use) is not directly measurable, it was important to gain some indication that the individual elements of the scale were associated to each other, measuring the same, or elements of the same, concept.
PCA is not a straightforward process and requires the researcher to make many judgements during the data analysis process and the final interpretation of results (Muijs, 2011). The first step in PCA is to assess the data set in order to decide if it is actually suitable for factor extraction. Diagnostic tests are available in SPSS to establish the appropriateness of proceeding with PCA. The important issue is to ascertain if there are a sufficient number of cases for each response category of each variable, to support a PCA. In the current study the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) was 0.6, slightly above the 0.5 minimum suggested by Field (2009), which equated to a ‘mediocre’ KMO measure (Field, 2009; Norušis, 2009). Bartlett’s test of sphericity can also be requested in SPSS in order to ascertain if the individual variables are sufficiently correlated to each other. If Bartlett’s test is significant the variables under investigation do not resemble an ‘identity matrix’ (where there is little or no correlation between variables), hence PCA becomes feasible (Field, 2009). The values obtained for Bartlett’s test of sphericity in the current study were $\chi^2 (45) = 105.3, p < .001$ indicating sufficient correlation for a PCA analysis. However, Norušis (2009) pointed out that Bartlett’s test relies on “multivariate normality and is very sensitive to deviations” from this assumption, hence “you’re better off relying on the KMO measure” (p.394). Field (2009) further suggested that whilst a non-significant Bartlett’s test should be of concern, a significant test might fail to identify insufficient correlations for PCA, particularly in large data sets. Overall the diagnostic tests undertaken in the current study, indicated that the data set was suitable, if not ideal, for PCA.

After deciding that a PCA was possible it was necessary to consider the most appropriate factor rotation method to adopt. In PCA rotating the factor structure is undertaken to aid in the interpretation of the
results, clearly illustrating in the SPSS output how individual variables load onto each factor (Kinnear & Gray, 2010). There are two main forms of rotation; ‘orthogonal’ where individual factors are unrelated and the rotation retains this independence, and ‘oblique’ rotation where factors are allowed to correlate together. Field (2009, p.653) noted that if there is a reason to think “that your factors might correlate then one of the oblique rotations (direct oblimin or promax) should be selected”. Since there was an initial assumption that the factors in the Likert scale developed for the current study would be correlated to one another, oblique rotation (direct oblimin) was considered the most appropriate option. Field (2009) further noted that in practical terms there are good grounds to suggest that orthogonal rotation is totally inappropriate “for any data involving humans” (p.644), since it is difficult to see how any psychological concept could be completely uncorrelated to any other psychological concept.

After running the PCA, four factors were generated with eigenvalues above 1, which is the default cut-off point in SPSS to include factors in the final model. Eigenvalues are a measure of the total variance each factor contributes to the model (Pallant, 2010). The highest eigenvalue for the four extracted factors in the current study was 1.69 and lowest eigenvalue was 1.08, and with only ten questions in the scale this equated to 16.9% and 10.8% of the total variance respectively. The scree plot which forms part of the SPSS output can prove a useful tool, enabling the researcher to visualise how many factors to retain in the model, rather than relying on the default setting in SPSS (Field, 2009). The scree plot in the current study (see Appendix E) did not present a clear point of inflexion, hence it was decided to adopt the criteria of eigenvalues greater than 1.0 (Kaiser’s criteria).
The total variance accounted for by the four factors extracted in the current study was 52%. Appendix F provides the pattern and structural matrices, produced as part of the SPSS output, along with the communalities (or measure of common variance) for each item of the Likert scale. Pallant (2010) suggested that this information is important for the reader to be able to see how decisions relating to factor extraction were made.

Table 2 provides the structural matrix from the PCA, with values below 0.5 removed to clearly identify how each item in the Likert scale fitted into the extracted factors. These loadings are either negative or positive, dependant upon the direction of the particular item on the scale, with some items requiring students to respond with an ‘agree’ to indicate a positive attitude and other items requiring a ‘disagree’ to suggest a positive attitude.

<table>
<thead>
<tr>
<th>Question from attitude scale</th>
<th>Component 1</th>
<th>Component 2</th>
<th>Component 3</th>
<th>Component 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 5</td>
<td>.70</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question 7</td>
<td>.63</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question 1</td>
<td>.52</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question 10</td>
<td></td>
<td>-.72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question 3</td>
<td></td>
<td>-.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question 4</td>
<td></td>
<td>-.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question 8</td>
<td></td>
<td></td>
<td>-.70</td>
<td></td>
</tr>
<tr>
<td>Question 9</td>
<td></td>
<td></td>
<td>.64</td>
<td></td>
</tr>
<tr>
<td>Question 2</td>
<td></td>
<td></td>
<td></td>
<td>.79</td>
</tr>
<tr>
<td>Question 6</td>
<td></td>
<td></td>
<td></td>
<td>-.62</td>
</tr>
<tr>
<td><strong>Cumulative % of variance accounted for</strong></td>
<td><strong>16.91</strong></td>
<td><strong>29.38</strong></td>
<td><strong>41.09</strong></td>
<td><strong>51.81</strong></td>
</tr>
</tbody>
</table>

Table 2 indicates a grouping of questions 5, 7 and 1 into factor 1, questions 10, 3 and 4 into factor 2, questions 8 and 9 into factor 3 and questions 2 and 6 into factor 4. Whilst the questions developed
for the Likert scale in the current study were not the same as those used by Chappel et al. (1985), there were sufficient similarities to suggest that comparisons could be made between the factors extracted by Chappel et al. (1985) and those in the current study.

The three Likert statements in factor 1 were: (item 5) ‘softer’ drugs, such as cannabis, are dealt with too harshly within the UK legal system’, (item 7) ‘individuals using illegal drugs in their own home should not be prosecuted if their use does not cause harm to others’ and (item 1) ‘the use of illegal drugs (such as cannabis, heroin, amphetamine and cocaine) is increasingly common in the UK’. In agreeing with these three statements students indicated a more tolerant attitude toward illicit drug use, accepting that the activity is something that occurs in society and does not necessarily result in the level of harm that supports the current level of state intervention. This interpretation of the factor shares a similar emphasise to Chappel et al’s. (1985) factor labelled ‘permissiveness’ in the SSAAS.

Factor 2 comprised of the three items: (item 10) ‘treating illegal drug users is a waste of NHS resources’, (item 3) ‘it is possible to tell if someone uses illegal drugs simply by looking at them’ and (item 4) ‘it is not possible to use illegal drugs occasionally’. Students, who indicated their disagreement with these three items, could be seen as being against stereotypical views of illicit drug use and illicit drug users. This indicates links to the factor labelled as ‘nonstereotypes’ by Chappel et al. (1985) in the SSAAS.

The final two factors each only contained two items, which can be seen as an insufficient number to be allowed to form a single factor (Pallant, 2010). Factor three was generated from combining the two
questions: (item 8) ‘most young people are first introduced to ‘hard’
drugs such as heroin and cocaine by a street dealer’ (item 9) ‘working
with drug users is a rewarding role’. These two items have opposite
weightings with respondents who indicated an agree with one item
and a disagree with the other representing a consistent attitude. With
only two items extracted for this factor it proved difficult to provide a
viable title and definition of the parameters of this factor, however
the two questions do indicate some degree of ‘moralism’ in the
respondents view on illicit drug use and working with substances
misusers. In disagreeing with the Likert statement suggesting that
working with drug users is a rewarding role and agreeing with the
view that drug dealers or ‘pushers’ introduce young people into the
use of drugs such as heroin, there are suggestions of a more moralist
attitude toward illicit drug use. In addition, agreeing with the
existence of street dealers who introduce young people into ‘hard’
drug use, illustrates a degree of acceptance of the stereotypical views
presented in some areas of the media.

The final factor identified in the PCA analysis consisted of the
questions: (item 2) ‘illegal drug use crosses barriers of wealth and
social status (ie both the poor and rich use illegal drugs)’ and (item
6) ‘illegal drug users should receive stiffer prison sentences if caught’.
As with factor 3 these two factors are loaded in opposite directions,
indicating that a student answering agree to one item, is likely to
disagree with the other. Whilst the grouping of these two items does
not adequately correspond with any of the factors suggested by
Chappel et al. (1985) for the SSAAS, they do make intuitive sense in
being loaded together. The suggestion would be that they
differentiate between students who tend to agree or disagree with the
general idea or the ‘normalisation’ of illicit drug use in society.
The four factors identified in PCA and the complete 10-item Likert scale were all tested for reliability using Cronbach’s alpha coefficient. The results of these reliability tests are presented in Table 3, indicating that all of the four extracted factors and the complete Likert scale all achieved well over the minimum value of 0.7 (Brace et al., 2009) indicating high reliability.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Likert scale (10 items)</td>
<td>.91</td>
</tr>
<tr>
<td>Factor 1: ‘permissiveness’</td>
<td>.93</td>
</tr>
<tr>
<td>Factor 2: ‘nonstereotypes’</td>
<td>.93</td>
</tr>
<tr>
<td>Factor 3</td>
<td>.92</td>
</tr>
<tr>
<td>Factor 4</td>
<td>.86</td>
</tr>
</tbody>
</table>

Overall the PCA analysis indicated that the scale was measuring factors associated with the same underlying concept. The four factors identified were broadly related to three of the five factors (permisiveness, nonstereotypes and nonmoralism) identified in the SSAAS (Chappel et al., 1985), with an additional factor, which has some links to the concept of normalisation (Parker et al., 1998). However, it is important to note that since factors three and four only contained two variables it proved difficult to clearly define or label these factors.

The communalities derived from the PCA (see Appendix F) suggested that there were no individual factors, which could be removed from the scale, using the cut-off point of 0.3 for redundancy suggested by Field (2009) and Pallant (2010). In addition, since all the factors identified in the PCA were linked to the concept of interest (attitudes towards illicit drug use) and no particular question appeared to be
redundant in the scale, all of the items in the Likert scale were used to develop a summative score for each participant as a measure of their attitudes towards illicit drug use.

**Generating the summative score from the Likert scale**

In order to preserve the contribution of all of the elements in the Likert scale, a summative score, encompassing responses to all 10 questions, was considered the most appropriate approach to generating the dependent variable in the current study. To facilitate calculating a numerical score for each participant, values were assigned to each element on the Likert scale. A score of 1 was allocated for each response indicating a positive attitude toward illicit drug users and a negative score (-1) for each response which indicated a negative attitude. Participants who answered ‘don’t know’ were felt to fall between a positive and negative view and were hence given a score of zero and those who indicated ‘don’t want to comment’ were treated as missing data. Thus the score for each participant consisted of a figure between −10 and +10 representing their overall tendency toward positive or negative responses. A participant receiving a score of −10 would indicate the maximum number of negative responses to the statements and a score of +10 the maximum number of positive responses. Whilst such an approach clearly retains the basic premise of an ordinal scale, with a higher number representing an increasingly positive response, the number generated for each respondent also represents an incremental increase in the actual number of negative to positive responses for each respondent. Hence the score for each participant was considered to be ‘sufficiently close to an interval scale’ (Miles & Shevlin, 2001, p.62) to perform analysis appropriate for interval data (discussed above).
Analysing the quantitative data

Since a convenience sample was used in the current study, the statistical analysis, which could be undertaken with the data set, was restricted to descriptive rather than inferential approaches (Szafran, 2012). Rates of self-reported illicit drug use and the influence of a range of independent variables (e.g. illicit drug use by friends and family and the commonality of drug use in the environment in which the student grew up) on the summative attitude score were initially explored. The majority of the independent variables were categorical in nature, thus it was possible to compare differences between the mean attitude score for each category within the variable of interest.

The current study also included a longitudinal dimension, allowing the researcher to match the responses of students at the start of training with those at the end of their first year. Comparisons were made between the attitude scores generated at the two time points, giving some indication of the influence of intervening events (de Vaus, 2001). Such events included first experiences in the practice environment as a trainee professional, for all of the student groups except those on the health and social care course. The questionnaire also asked the students about any contact with drug users in the practice setting and the asked about how they felt illicit drug users were perceived and treated in practice settings.

Multivariate analysis

In order to add to the initial insights gained from the bivariate descriptive analysis and obtain a more comprehensive view on the effects of the independent variables on the attitudes of the participants multiple regression analysis was used. Multiple regression allows the researcher to develop a model identifying how
several independent (predictor) variables influence a score on the dependent (or outcome) variable (Brace et al., 2009). A series of correlation analyses are able to identify relationships between independent and dependent variables, however, independent variables, which contribute to the same dependant variable, may also be interrelated with each other. Multiple regression identifies such interrelationships allowing a researcher to discount independent variables which do not significantly contribute extra information to a predictive model (Brace et al., 2009).

Multiple regression analysis was used to establish which set of independent variables were best able to predict a score on the attitude scale at the start of the students’ training and to identify how well these variables were able to do so. Data from all of the participants completing the questionnaire at the start of their course, were used to develop a model linking the multiple independent variables measured in the study with the attitude score (dependent variable). The decision to use responses from all participants, rather than just the student nurses, was taken in order to retain sufficient numbers of participants in each of the categories of the independent variables introduced into the model. Field (2009) suggested that 200 participants are sufficient for up to 20 predictor variables where a medium effect size (Cohen, 1988) is expected. Using data from all of the participants exceeded this point.

Variable entry

When developing a regression model, Miles and Shevlin (2001) pointed out that it is important to develop a parsimonious model that “explains the most variance in the dependent variable containing the fewest number of independent variables” (p.38). Many statistical
packages allow the researcher to build up regression models via a series of steps where variables are introduced sequentially (Miles & Shevlin, 2001). This can either be described as ‘backward’, where all variables are introduced into the model and removed if they are statistically insignificant, ‘forward’, where the model starts with no variables and introduces those that are significant in order of magnitude (Miles & Shevlin, 2001) or ‘stepwise’ where variables are sequentially introduced, the model is reassessed and unnecessary variables removed to leave the smallest possible set (Brace et al., 2009). It is possible to request that this process is undertaken automatically in software packages such as SPSS. Fullerton and Maltby (2009) suggested that automatic ‘stepwise’ introduction is a good option with a large number of variables or where the researcher suspects multicollinearity. However, Miles and Shevlin (2001) warned against relying on software packages to define the relative importance of correlated variables in a regression model as this can lead researchers to ignore other influences, such as relevant existing theoretical perspectives. In the current study the decision to retain or remove a variable was made by the author based on the standardised beta values and correlation matrix, rather than by SPSS. The balance was to achieve a model with the lowest number of predictor variables whilst explaining the most variance.

**Interviews (qualitative data)**

In order to add detail to the data collected by the questionnaire, one-to-one interviews were conducted with a number of students who had agreed to be interviewed when completing the questionnaire. Qualitative interviews may be approached from a range of differing perspectives, with the researcher either seeing the process as a creative construction of meaning or as “an unearthing of preexisting meaning nuggets from the depths of the respondent” (Kvale &
Binkmann, 2009, p.18). The aim of the interviews in the current study was to add depth and detail to the factors associated with attitude formation and change, thus the emphasis was on exploring ‘preexisting meaning’ rather than on an unbounded, “creative process... involving interviewer and interviewee as co-constructors of knowledge” (Kvale & Binkmann, 2009, p.18).

An interview schedule (Appendix B) was developed in order to guide the interview toward the factors identified as influencing attitudes towards illicit drugs in existing literature. Potential participants had been previously issued with an Information Leaflet (Appendix C), and were asked to sign a Consent Form (Appendix G) prior to interview. The purpose of the interview was also reinforced verbally with each participant at the start of the interview. The researcher confirmed that the aim of the interview was to explore factors associated with attitudes towards illicit drugs not to discuss the student’s personal experiences of illicit drug use. This issue was reinforced to protect participants from the possible implications of admitting to engaging in illegal activities such as drug use.

The interview was opened by asking each interviewee to “imagine a scale from 1 to 10, with 1 being very much against illicit drug use and 10 being in favour of individuals being able to choose if they would like to use a particular drug”. The interviewees were then asked where they would fall on such a scale and if they could identify any influences on their view. All interviewees were then asked to reflect on whether they felt their views had changed over the course of the year they had been on their respective course. The remaining sections of the interview schedule were set out to explore the students’ personal background, knowledge linked to illicit drug use and more recent experiences of working with illicit drug users. For the
majority of those interviewed, it was expected that this would relate to practice placement experiences gained whilst undertaking their current course. Students studying on the health and social care course, where their course did not contain a practice element, were encouraged to think about work experiences outside of their course. These broad areas for discussion were used to link the areas covered in the interview with the variables explored in the questionnaire.

Interviews were audio recorded in order to provide an accurate account of the discussion. Peräkylä (2004) suggested that audio recordings provide a more detailed and accurate account of the interaction between researcher and subject, allowing the validity of the research findings to be more accurately assessed. However, the use of recording equipment can potentially inhibit the depth of discussion (May, 2001), particularly where sensitive topics are being discussed. Participants were offered the option of conducting the interview without recording equipment, with the researcher taking written notes, but none of the participants in the current study requested this option.

Each interview was transcribed in order to facilitate data analysis. Kvale and Brinkmann (2009) raised several problems relating to the transcription of audio recordings, pointing out that the process loses much of the contextual information relating to the relationship between researcher and interviewee. Issues such as irony and sarcasm are not transcribed into the written word and pauses and tone are excluded from the written account (Kvale & Brinkmann, 2009). Gillham (2005) recommended that the most appropriate option is for the researcher to transcribe their own interviews, as it is difficult for transcribers to correctly hear and interpret what was said. Due to time constraints it was not possible for the researcher to
transcribe all of the interviews in the current study. University administrative staff, employed at a different institution to the one in which the students were studying, transcribed some of the interviews in the current study. This approach was used in order to avoid the possibility of interviewees being identified by administrative staff at the University in which they were studying. All of the transcripts were, however, thoroughly reviewed by the researcher to check their authenticity and accuracy (Gillham, 2005) and all data were stored on a password protected university computer. The approach used in transcribing was to remain as close to the spoken word as possible in order to retain the respondent’s phraseology and meaning.

**Qualitative data analysis**

Thematic analysis was used with the qualitative data generated in the current study. Braun and Clarke (2006) noted that whilst some forms of qualitative analysis consider data from an interpretivist perspective, thematic analysis may adopt a rather more realist approach to data. This is possible because the researcher has the freedom to decide how themes are developed and how data are coded during analysis (Braun & Clarke, 2006). This possibility is consistent with the mixed method approach used in the current study.

Set against such a lack of restriction, Bryman (2008) noted that whilst thematic analysis is one of the most commonly reported approaches to qualitative analysis, it often remains poorly described and defined in literature and research articles. Ryan and Bernard (2003a) pointed out that such a lack of clarity may be linked to the fact that there is little consistency in the terminology used by qualitative researchers when describing the idea of a theme. Ryan
and Bernard (2003b, p.275) suggested that themes can be seen as “abstract (and often fuzzy) constructs that investigators identify before, during and after data collection”.

Different traditions of qualitative enquiry and different authors tend to use a range of terms interchangeably in order to describe the essence of a ‘theme’. Within grounded theory, the terms ‘concept’ or ‘category’ are used to describe the core components of a theme (Ryan & Bernard, 2003a) and these are developed and expanded upon during repeated stages of concurrent data collection and analysis. More deductive approaches to qualitative research may consider data in relation to constructs identified in existing theory. However, despite such a lack of clarity around how to define a theme, there are some points within existing literature that can assist a researcher when using thematic analysis. At a fundamental level, Ryan and Bernard (2003a) noted that some form of categorisation is vital in order to effectively describe any findings from qualitative research. Gibson and Brown (2009, p.127) suggested that data should be analysed “according to commonalities, relationships and differences”, with the aim of finding “aggregated themes”, thus the idea of a theme is extended to an aggregation of the properties and dimensions of an area of interest. Progressing from simply describing occurrences and patterns in the data set toward considering it at a more topic-based level has been seen as an important element in qualitative analysis (Patton, 2002). Braun and Clarke (2006) emphasise this process in defining thematic analysis as:

a method for identifying, analysing and reporting patterns (themes) within data. It minimally organizes and describes your data set in (rich) detail. However, frequently if goes further than this, and interprets various aspects of the research topic. (p.79)
Clarity around the operational approaches adopted is important in assessing the quality of a qualitative research study. Avis (1995) suggested that, rather than judging qualitative research against standards more appropriate to quantitative research, qualitative studies should be assessed by standards of ‘auditability’. This view on judging the merits of a qualitative study, relies on the researcher clearly discussing all decisions related to how the study was conducted and how they support the conclusions reached. These discussions allow a reader to make an informed decision on a study’s validity and therefore its impact on current knowledge (Avis, 1995). Such an approach was adopted in the current study thus requiring clear explanations around how themes were developed, the process of data management and the later stages of data analysis.

The first stage in making sense of any data is to effectively manage the large amount of text generated and effectively code sections of data in order to facilitate further analysis and interpretation (Fielding, 2008a). Ritchie, Spencer and O’Connor (2003) described a ‘thematic framework’ that could be “used to classify and organise data according to key themes, concepts and emergent categories” (p.220). This thematic framework consisted of a matrix allowing the researcher to effectively manage and identify the origins of sections of raw data coded under different headings. Such a process now forms the basis of the coding system used in Nvivo 8 software (Bazeley, 2007). In the current study sections of data were coded under headings, termed ‘nodes’ in Nvivo 8. Nodes in Nvivo 8 are defined as a collection of references to an area or item of interest within the data and can be either unrelated to each other, entitled ‘free nodes’, or linked in a hierarchical structure, entitled ‘tree nodes’ (Bryman, 2008). Themes may be developed from the coded data in a process akin to grounded theory or “generated a priori from the
research questions or interview guide” (Fielding & Thomas, 2008, p.259). In the case of the current study, an initial set of thematic headings for coding was established *a priori* from the interview schedule, with the aim of maintaining a clear focus on the research questions. Figure 7 represents the initial ‘tree node’ structure introduced into the Nvivo 8 software package.

![Figure 7. ‘Node tree’ entered into Nvivo 8 software package.](image)

After the node structure was introduced and all of the qualitative data had been imported into the software package, the data set was closely examined by the researcher and coded to appropriate nodes. Strauss and Corbin (1998) described the process of “micro-analysis” which involves very careful, often minute *examination and interpretation of data* (p.58, emphasis in the original). This approach to analysis requires the researcher to carefully consider each section of data in terms of the descriptions and interpretations of the participants, whilst noting the impact of their own interpretation on the process (Strauss & Corbin, 1998). Micro-analysis was initially used in the current study. However, while the emphasis of a grounded theory project is for the researcher to start to develop
concepts from the data (Strauss & Corbin, 1998), the emphasis in the current study was to link sections of raw data to existing nodes. Careful micro-analysis allowed the researcher to effectively situate raw data into the appropriate headings for further analysis.

This initial stage of data analysis required some consideration of the parameters and definitions for each of the themes identified. Boyatzis (1998) suggested that developing good thematic codes is important in order to capture the depth of the phenomenon under investigation and to facilitate the later stages of data analysis. Thematic coding also helped to facilitate integrating any qualitative data generated in the questionnaires with data from the interviews, allowing the researcher to link the different strands of data together on a conceptual level. In order to optimise this process, Boyatzis (1998) suggested five important elements which need to be considered in developing an effective ‘thematic code’:

1. A label (i.e. a name)
2. A definition of what the theme concerns (i.e. the characteristics or issues constituting the theme)
3. A description of how to know when the theme occurs (i.e. indicators on how to “flag” the theme)
4. A description of any qualifications or exclusions to the identification of the theme.
5. Examples, both positive and negative, to eliminate possible confusion when looking for the theme.

(Boyatzis, 1998, p.31)
These elements were considered for each of the thematic codes developed in the current study. A description covering these five points was introduced into Nvivo 8 and referred to as an aid-memoir during the initial coding process (see Appendix H for an example of a thematic code description for ‘own use’).

Spencer et al. (2003) noted the importance of thoroughly and consistently analysing the data generated from each individual case in order to facilitate effective between-case comparisons. The descriptors for each of the thematic codes were referred to at various points whilst coding each individual case in order to maintain such a degree of consistency for later stages of analysis.

After sections of data were assigned to nodes in Nvivo 8, further analysis was conducted within each theme. Spencer et al. (2003) suggested a hierarchical or staged process in thematic qualitative analysis. This hierarchical process progresses through successively more refined data analysis where descriptive and finally explanatory accounts may be developed (Spencer et al., 2003). The initial research questions set for the current study included both descriptive questions, aimed at highlighting the factors contributing to the attitudes of the students toward illicit drug use at the start of their training, and explanatory questions considering how attitudes are influenced. Moving from simply categorising sections of data, through descriptive accounts towards more explanatory answers requires increasing levels of abstraction (Ritchie et al., 2003). In addition, Ritchie et al. (2003) made the distinction between explicit explanations, where an explanation is sought from the words of the informant, and implicit explanations where the researcher adds their explanation from an interpretation of the data and links to existing evidence or theory. In a similar stepped approach to thematic
analysis, Braun and Clarke (2006) describe six phases of analysis moving from a clear familiarisation with the data set, through thorough exploration of the themes, to the description and reporting of fully explored themes “embedded with an analytic narrative” (p.93). In parallel with Berg’s (2006) spiralling approach to integrating theory into the research process, Braun and Clarke (2006) suggested that this phased approach to thematic analysis is a “recursive process, where movement is back and forth as needed, throughout the phases” (p.86, italics in the original). Thus the researcher may revisit earlier phases of analysis, returning back to recoding the data when refining themes raises new perspectives.

The actual processes and techniques involved in qualitative data analysis, including thematic analysis, are often poorly described (Bryman, 2008). Gibson and Brown (2009) suggested that this might be because the:

organization of data is not simply a technical matter, but a theoretical and conceptual issue that cannot be codified or abstracted into concrete rules of practice. (p.128)

However, there are some analytical strategies which are generally used across different approaches to qualitative research and are commonly used by researchers to consider coded data in more detail. Strauss and Corbin (1998) usefully described analytical procedures in some detail in their approach to conducting grounded theory, suggesting two basic procedures; ‘constant comparison’ and the use of questioning to make sense of data. In comparing the accounts of different participants or groups of participants, the researcher is looking for similarities and differences in order to “discover properties
and dimensions of categories” (Strauss & Corbin, 1998, p.89). Asking appropriate questions of the data allows the researcher to develop a clearer understanding of the phenomena under consideration (Strauss & Corbin, 1998), whilst at the same time maintaining a sense of context with the segmented data coded into each thematic category. These processes, whilst specifically described in terms of grounded theory methodology by Strauss and Corbin (1998), were used in the current study in order to provide an appropriate foundation for descriptive and explanatory discussions based on data obtained from the semi-structured interviews.

It is important to note that in discussing the parameters of themes explored in the qualitative data and providing explanations for any links between themes, the author of the current study adopted the position taken by Spencer et al. (2003) who suggested:

that qualitative explanations attempt to say why patterns and outcomes in the data have occurred. These explanations may use a causal logic in a loose, non-universal, non-deterministic sense, but the logic is not based on linear variable analysis. They rarely cite a single cause or reason, but set out to clarify the nature and interrelationship of different contributory factors or influences (p.216).

Thus the emphasis of qualitative data generation and analysis was to provide indications of how attitudes and views on illicit drug use had evolved within the interviewees. This approach was considered to be in keeping with the nature of the qualitative data gained from the participants, providing depth and detail, which was not possible in the questionnaire data.
Ethical considerations

Given the sensitive nature of the focus of the current study, the need for careful forethought around ethical issues and the protection of participants remained paramount. Ethical approval was sought and gained from the relevant university ethics committees at all four participating HEI’s, but despite such approval being granted through official channels, gaining access to students required the cooperation of teaching staff and course leaders. In one HEI, where ethical approval was granted, the head of the school of nursing would not permit data collection to take place in the format set out in the study protocol or allow the author to explain the study to the students in person. The study was explained by a member of teaching staff from within the school of nursing and the contact details of a single student who agreed to complete the anonymous questionnaire was passed on to the author. In a second HEI where ethical approval was gained, with schools of nursing in satellite locations, several heads of these satellite schools refused to allow their students to take part in the current study. Their explanations for this refusal related to the fact that their students were already involved in other research and further research was perceived as potentially having a detrimental effect on the students’ educational experience.

Informed consent

The use of students as research subjects raises ethical considerations in its own right. Students may feel compelled to participate (Foot & Sanford, 2004) despite concerns that would normally deter them from involvement. The concept of informed consent played an important role in addressing this issue. All students who completed the questionnaires and participated in the semi-structured interviews were advised that their participation was optional. They were informed that they could withdraw from the study at any point, with
no adverse consequences. According to Morse (1994), informed consent should also include information on who will have access to data and the purposes for which it will be used. All participating students were given an Information Leaflet including this information and detailing the aims and purpose of the study (Appendix C).

Participants in the one-to-one interviews were also required to sign a separate Consent Form prior to participating in an interview (Appendix G). In addition to the written details supplied on the Information Leaflet, the nature of any risk in participating, such as disclosure of personal drug use, was discussed with each interviewee at the start of their interview. Interviewees were informed of their right to withdraw at any point they felt uncomfortable and that any request to withdraw would result in the destruction of all notes or recordings pertaining to their interview. The right to withdraw was also reaffirmed at the end of each interview and at any point where the interviewee appeared distressed. None of the participants interviewed in the current study chose to exercise this choice.

Reciprocity

A second ethical concern requiring consideration was that of reciprocity. Researchers gain qualifications, publications and professional recognition, and the institutions for which they work gain financial rewards, for research activity (Miles & Hubermann, 1994). The participants in the current study spent valuable time, at the start or beginning of lectures, completing the questionnaire and students who volunteered for the semi-structured interviews gave some of their free time to take part. Given this commitment, it is important to consider what possible gains they might have achieved in taking part (Devine & Health, 1999). In terms of the current research,
participants did gain first-hand experience of participating in a research project, which, in itself, may have assisted them in developing their own research skills. All of the student groups involved in completing the questionnaires and those students who took part in the interviews all had a focus on elements of EBP in their respective courses. The literature associated with teaching research techniques has suggested that the best approach to learning about research is through experience, being involved in and conducting research (Healey & Jenkins, 2009) and seeing its relevancy to practice based issues (Nguyen & Lam, 2009). All of the students in the current study were involved in data collection and were all made aware of the purpose and rationale behind the current study, therefore seeing its practical utility. The social work students involved in testing the questionnaire (see Appendix D) were able to discuss and critique the study questionnaire during an EBP lecture after they completed it on the second occasion, thus adding to their awareness of survey techniques.

From a pragmatic perspective, the study may also influence course planners toward considering substance misuse as a focus in professional curricula. Such a possibility could improve the skills of health and social care professionals and ultimately improving patient/client care. Both students providing data and the teaching staff involved in facilitating data collection in the current study were made aware of how their contributions might be of benefit to future approaches to education.

Confidentiality

Confidentiality is an important issue in preventing harm from disclosure, particularly when personally sensitive issues are
discussed. In the case of the current study, participants were asked for information linked to their use of substances controlled under the Misuse of Drugs Act (1971). In acknowledgement of the sensitive nature of the information requested, the questionnaire did not require the participants to provide their name or any identifying details, despite maintaining a truly longitudinal design where questionnaires could be matched at an individual level (see above).

In addition to the anonymous questionnaire, names and identifying details were not recorded in the qualitative element of the research. Transcription was undertaken using pseudonyms where necessary and transcribers were selected in order to minimise the possibility that they might recognise respondents. All interviews were conducted in an appropriate environment, acceptable to both the researcher and participant. The location for each interview was chosen to avoid interruptions and the possibility that a third party could overhear the discussion.

Raw data from both stages of the research have been kept for the minimum length of time necessary for the study and will be destroyed as “a routine (and explicit) form of protection” (Gillham, 2005, p.14). All electronic data collected for the study were securely stored on the researcher’s password protected University computer, or, in the case of paper records, kept in a locked filling cabinet in a locked university office. This requirement was a stipulation of the ethical approval gained from the participating HEI’s.

**Limitations of the current study**
As previously noted, at the time of conducting the current study, there was a paucity of literature focused on attitudes towards illicit
drug use amongst student nurses. Whilst it is anticipated that the current study will contribute to the existing literature base it is important to acknowledge limitations in the current study. These limitations relate to what data were collected, the longitudinal measure adopted in the study and the approach used to access participants. Whilst some of these limitations are associated with the design of the current study, some constraints were imposed by the participating HEI’s or linked to the focus on illicit drug use, which required careful ethical consideration.

**Questionnaire**

One of the requirements in designing the questionnaire was its ability to be completed within a short time period. This was necessary in order to avoid reducing valuable teaching time for the students in the study. In order to gain approval from the participating universities, it was necessary to reinforce the fact that the questionnaire would only reduce teaching time by 15 minutes. Existing questionnaires measuring attitudes towards illicit drugs, such as the SSAAS and modified versions of the AAPPQ, take considerably longer to complete, which would have proved unacceptable to the HEI’s involved in the current study. The stipulation that the questionnaire needed to be completed in 15 minutes was an obvious limitation in terms of the amount of data that could be collected. A longer questionnaire could have included more specific questions directed at understanding the impact of the participants’ contact with illicit drug users in the practice setting. Exploring the details of the students’ practice experiences linked to illicit drug use would however, have proved difficult without significantly lengthening the questionnaire. The inclusion of more questions may also have been useful in exploring the influence of factors such as religiosity on the participants’ attitude scores, rather than simply asking the students to identify a religion.
Longitudinal measure
The decision to measure change in attitudes over the student nurses’ Common Foundation Programme [CFP] or first year of training (see research question 3, p.83-84), rather than the full three-year training period, could be viewed as a limitation of the current study. There were, however, reasons to believe that this time period would be sufficient to measure changes in the students’ attitudes and also practical factors prohibiting data collection at the end of the three-year training period.

During the first year of training, for the student nurses involved in the current study, all four branches of nursing (adult, mental health, learning disabilities and children) were taught together on the CFP, gaining the foundational knowledge and basic practice skills required by qualified nurses (NMC, 2010). The CFP required the student nurses to spend 50% of their time in academic study, gaining knowledge on general topics linked to healthcare and 50% of their time in a range of practice settings. The aim of this experience was to gain an understanding of generic skills such as communication and how to interact with different groups of service users (NMC, 2004). At the end of this generic year, all of the students needed to achieve a series of outcomes, grouped into clusters known as Essential Skills Clusters [ESCs], before they were able to proceed into their chosen branch (NMC, 2004). Outcomes focusing on the students’ value base were included in the ESCs, mirroring elements of the NMC code of conduct for nurses and midwives (NMC, 2008). On entering the branch programme, student nurses needed to be able to “recognise the effect of one’s own values on interactions with patients and clients” (NMC, 2004, p.35). Elements of the CFP focused on enabling students to reflect on how their personal values influenced the care they were involved in providing. Therefore during the CFP, students were exposed to academic activity and practice settings, and were
explicitly expected to think about the impact of their own values on practice. The nursing students were assessed on this and were required to demonstrate their ability to reflect on their own values in order to progress into the next stage of their training. Thus it was thought that of all the years within the nursing qualification, this was the year where attitudes would be expected to change the most.

In addition to the above rationale for measuring attitude change over the CFP, there were practical issues that impacted on the choice of this timeframe in the current study. Repeating the questionnaires at the end of the student nurses three year training period, would have proved difficult, given that each branch programme had their own pattern of practice placements in the final year of study. This would have resulted in a lack of consistency in the second point of measurement for the different groups of students involved in the current study. Different branches of student nurses, within the same cohort, were also taught at a range of locations, by different teaching staff, adding to difficulties in gaining access to participants for data collection.

A potential solution to the difficulties in accessing the same student nurses at the start and end of their three-year training period would have been to issue the questionnaire to different groups of third year students. Whilst sampling different informants at the two time periods does not allow the measurement of change at an individual level (de Vaus, 2001), it may have resulted in a more consistent time point for a second set of data collection at the end of the student nurses training. However, there were general problems associated with gaining access to student nurses in their final year of training. The student nurses’ final year of training was heavily focused on preparation toward the qualified nurse role, resulting in no opportunities to collect data during lecture time. This would have
required a different approach to delivering the study questionnaire, such as delivering the questionnaire by email or post. This would have in all likelihood reduced the return rates, therefore influencing the ability to compare attitude scores, and raised ethical issues about the researcher having access to students’ personal contact information.

**Access to participants**

In addition to constraints on the longitudinal design of the current study there were also general difficulties in gaining access to participants. Despite being granted access to student nurses by academic management and ethics committees, several schools of nursing were unwilling to engage with the process of data collection, as set out in the study protocol. This may have been due to curriculum time constraints or perhaps related to issues around the insecurity of nurse education and nursing as a profession. Anxiety over the possibility that the nursing profession may be exposed in a negative light if student nurses admitted to using illicit drugs was informally expressed during negotiations around accessing participants in several schools of nursing. This anxiety did not appear to be present in academic staff who facilitated access to students undertaking the other professional courses represented in the comparison groups.

**Comparisons with medical students**

For practical reasons it was also necessary to omit a potentially useful comparison group from the current study. Comparing the attitudes of medical students with the other comparison groups may have provided a clearer indication of the influences of training in more biomedically focused professions on the students’ attitude scores. Difficulties in obtaining institutional and ethical committee approval and the problems associated with collecting a second set of data after
the start of their training meant that including medical students was not feasible.

**Gatekeepers**

Despite extensive thought and planning around the integration of ethical considerations into the design and conduct of the current study and gaining approval for the study from the appropriate university ethics committees, academic staff in some institutions did present further obstacles, hindering access to potential participants in the current study.

The issue of ‘gatekeepers’ has been noted in research where there is a need to access closed or private settings such as organisations as an outsider (Plowright, 2011). Gatekeepers can prove to be key figures in gaining access to private or closed settings, either facilitating the research or denying the researcher access to the field of enquiry (Berg, 2007). Fielding (2008b) noted the importance of gatekeepers in gaining acceptance within organisations, but also warned, “that they may have ulterior motives in cooperating, such as influencing your account” (p.273) of the organisation or individuals within it. In addition, Berg (2007) suggested that, whilst gatekeepers are not necessarily in a position of power within the organisation, they may have considerable sway over the practicalities of gaining access and collecting data.

Maintaining an appropriate relationship with organisational gatekeepers was important in issuing the questionnaire and conducting interviews. Relying on the goodwill of lecturing staff at the institutions involved was essential as participants completed the study questionnaire within the first or last fifteen minutes of a taught
lecture. It was also important to secure a suitable location to conduct the interviews for the study, which required the cooperation of administrative staff responsible for booking rooms. Berg (2007) stated that, in order to gain access, “research bargains may necessarily be struck” (p.185). However, Fielding (2008b) warned that a researcher should “avoid promising too much through gratitude” (p.272) when attempting to negotiate access through institutional gatekeepers. Mediating between these two positions was an important focus of negotiation within the current study.

The fact that the author of the current study is an experienced lecturer, having taught the topic of substance use/misuse at undergraduate and postgraduate levels, raised some difficult negotiations. Since substance use has been identified as an important omission in nurse education (Rassool & Oyefesco, 1993; O’Gara et al., 2005) and social work training (Galvani, 2007), some institutions involved in the study were keen to obtain taught lectures on the subject in exchange for access to participants for the study. A refusal to engage in such activity required careful negotiation in pointing out boundaries between the role of a lecturer specialising in this topic area and a researcher gaining data for a doctorate thesis. In addition to consideration of the provision of taught sessions, subsequent publication from the results of the current study was also a feature of discussions with gatekeepers. Concerns were raised that students involved in the study could be inconvenienced by participation without any tangible gain if publication did not occur, yet at the same time concerns were raised that participating universities could be seen in a bad light if it were revealed that students used illicit drugs at a high rate. The author of the current study remained mindful of the point made by Tarling (2002) who suggested that health care researchers have a moral obligation to disseminate research where
findings can have implications for patient care. Discussions and agreements that any significant findings from the current study should be disseminated appropriately, and that the names of institutions would be kept anonymous, were important in allaying concerns raised by academics within the institutions involved in the study.

The key strategy adopted in the current study was to clearly explain the purpose and potential benefits of the study to all of the organisational gatekeepers facilitating access. However, due to issues within the organisations involved, such as last minute changes in teaching staff or lecture times, data collection was not always successfully achieved. As Berg (2007) pointed out, “angry gatekeepers may actively seek ways to block one’s access and progress” (p.185). This did occur in the current study, requiring negotiation with managers in the HEI concerned and further visits to collect data.

**Summary**

The design of the current study required careful forethought in order to provide evidence to answer the questions set for the study. A mixed methods design was considered the most suitable approach to answering the research questions set for the current study, providing detail and depth around the factors influencing the students’ attitudes towards illicit drug use.

Both quantitative and qualitative data collection and analysis methods were used in the current study. The quantitative element relied upon the data generated from a bespoke questionnaire designed for the current study. Qualitative data were generated through a series of
semi-structured interviews, with some open-ended comments being generated by the questionnaire.

Despite careful consideration of the design of the current study, there were some limitations, which required acknowledgement. These related to the design of the questionnaire, the longitudinal time-scale used in the current study and the limitations of accessing potential participants. In addition, the nature and focus of the current study required careful consideration of ethical issues relating to informed consent, reciprocity and confidentiality.

The following chapter will present the results of the data analysis conducted on the quantitative data obtained from the questionnaire.
Chapter 6: Quantitative results

The focus of this chapter is on the findings from the quantitative element of the current study. This data set was generated from the study questionnaire (Appendix A) issued to all groups of health and social care students at the start of their respective courses and then again at the end of their first year. The aim of the quantitative analysis was to provide broad, group level insights linked to each of the research questions set for the current study, complementing the more detailed, case level explanations sought in the qualitative data.

Approaches to data analysis were influenced by the overall aim of the current study, the research questions set for the study and the nature of the data generated. An important influence was the fact that a random sample was not sought (see discussion in Chapter 5, pp.121-125), leading to the use of descriptive approaches to explore the data set generated for the current study, rather than inferential approaches which generalise findings to a larger population. In addition, each research question required different sub-samples of students to be selected from within the data set as a whole. This impacted on the number of cases in some categories of the independent variables measured in the current study. This lead to some difficulties when comparing sub-groups within the data set and problems when contrasting the findings from the current study with those of larger national studies, such as the British Crime Survey [BCS] 2009/2010 (Hoare & Moon, 2010). These issues were taken into account when considering how the data were managed, at some points necessitating the creation of new and dummy variables during the process of analysis. Where such approaches were required, the rationale for the creation of each of these new variables are set out in the appropriate sections of the discussion below. Each section of this chapter briefly describes how the data were generated through the
study questionnaire, sets out any processes required to manage and analyse the data and then presents the results from this analysis along with a brief indication of their meaning. Chapter 7 will discuss these results in more detail, alongside the results from the analysis of the qualitative data, linking them to the importance of the current study in terms of nurse education.

This chapter will initially describe rates of illicit drug use reported by participants in the current study and outline the characteristics of the summative attitude score. The remaining sections of the chapter will be structured around each of the research questions set for the current study (see pp.83-84). Initially the relationship between a range of factors (independent variables) and the participants’ summative attitude scores will be considered. This will be followed by a description of the multivariate analysis, which aimed to consider how the factors considered in the bivariate analysis interacted together to influence the participants’ summative attitude scores.

**Self-reported illicit drug use**

One of the important contributions to existing knowledge to emerge from the current study was that rates of illicit drug use could be identified in the groups of student nurses and other health and social care trainees. Whilst it was not a specific aim of the current study to quantify rates of illicit drug use, this information was considered important, offering the opportunity to determine if self-reported illicit drug use amongst the participants was similar to rates identified for the general population.

Questions relating to the participants’ personal use of illicit drugs were devised in order to allow the researcher to make comparisons
with the findings from the BCS 2009/2010 (see Figure 6, p.120). In the BCS, data on illicit drug use were collected as an adjunct to the main survey and were published in a separate Home Office Statistical Bulletin (Hoare & Moon, 2010). In the BCS, participants between the ages of 16 and 59 years were asked to complete a self-report questionnaire focusing on their personal illicit drug use. The current study asked all participants about their personal history of illicit drug use at the start and the end of their first year of training. Only one of the student nurses failed to provide this information in the questionnaire completed at the start of their training, resulting in data being collected from 153 student nurses.

The BCS found gender differences in rates of illicit drug use, with fewer females reporting using illicit drugs than males. Student nurses in the current study had an extremely unbalanced gender mix, with only 9% \((n = 14)\) being male. This gender imbalance is consistent with figures for the UK as a whole, which indicate a rate of approximately 11% for male student nurses (Higher Education Statistics Agency [HESA], 2011). Whilst low numbers reduce the efficacy of comparisons using percentages (Gorard, 2003), Table 4 compares illicit drug use in the preceding year by gender of the student nurses in the current study, with the findings from the 2009/2010 BCS (Hoare & Moon, 2010).

<table>
<thead>
<tr>
<th>Gender</th>
<th>Percentage of the general public who reported using any drug in the last year in the BCS (Hoare &amp; Moon, 2010)</th>
<th>Percentage of nursing recruits in the current study who reported using any drug in the last year.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>11.9</td>
<td>14.0*</td>
</tr>
<tr>
<td>Female</td>
<td>5.4</td>
<td>5.8</td>
</tr>
<tr>
<td>Both</td>
<td>8.6</td>
<td>9.9</td>
</tr>
</tbody>
</table>

*This percentage equates to 2 out of 14 male student nurses.
The figures presented in Table 4 suggest similarities between self-reported drug use within the previous year in students to nursing in the current study and the general public, particularly for female student nurses. The figures suggest that nursing students are likely to report relatively similar recent personal experiences of illicit drug use to the general public, as measured in the BCS 2009/10.

The BCS found higher rates of recent drug use among 16 to 24 year olds than among older respondents, but despite a similar format of questions being adopted in the current study, direct comparisons between the rates of drug use highlighted in each study were problematic. The age distribution of participants in the current study did not cover all the categories used in the BCS. The youngest student nurse in the current study was 17, corresponding to the minimum age for training stipulated by the Nursing and Midwifery Council [NMC], and the eldest was 50 years of age. Whilst it was possible to divide the continuous scale, used in the current study, into age bands to compare with the BCS data, the uneven age distribution in the current study would have resulted in relatively small numbers of individuals in some categories, therefore comparisons according to age were not carried out.

Figures for illicit drug use within the previous year in the comparison groups varied considerably, with no clinical psychology and post-registration midwifery students and only 1 out of 20 pre-registration midwifery students reporting illicit drug use in the previous year. Social Work students reported a marginally higher overall rate of illicit drug use within the previous year (10.4%, \( n = 5 \)) than the general public (Hoare & Moon, 2010) and the student nurses in the current study. Health and social care students reported a much higher overall rate of 20.2% \( (n = 18) \). However, when it is noted that 80% of these
students were aged between 18 and 20 (inclusive), this closely matched the 2009/2010 BCS figure of 20% for illicit drug use in 16-24 year olds in the general population (Hoare & Moon, 2010).

Overall, whilst comparisons needed to be viewed with some caution, rates of illicit drug in the previous year reported by participants in the current study were found to be very similar to those reported by the BCS 2009/10 (Hoare & Moon, 2010). This suggests no notable differences between the student nurses, social work students and the health and social care students surveyed in the current study and the general public. Whilst it is accepted that there were limitations in how previous year illicit drug use was measured and difficulties drawing comparisons between the students surveyed in the current study and the general public measured in the BCS, this is an important finding, which adds to existing knowledge.

The validity of self-reported rates of illicit drug use

The validity of self-reported rates of illicit drug use has been accepted as unproblematic by some authors (Johnston & O’Malley, 1997; Johnson & Mott, 2001), but questioned by others (Fendrich & Rosenbaum, 2003; Rosenbaum, 2007). Problems have been noted, particularly when considering the responses of young adults who may have environmental pressures, such as the presence of peers, influencing how they report illicit drug use in questionnaires (Percy, McAlister, Higgins, McCrystal & Thornton, 2005). For example, younger adults may be prone to over-reporting experiences with illicit drugs in order to gain status amongst their peers.

In the current study, questionnaires were completed in the presence of other students, which may have led to some underreporting, with
respondents concerned about the implications of self-disclosure of illicit drug use, in the context of studying for a professional qualification. Participants in the BCS were asked to complete the study questionnaire in private on a laptop computer supplied by the researcher (Hoare & Moon, 2010). The responses of participants were then electronically encrypted in order to keep them confidential from the researcher. However, fears around the self-disclosure of illegal activity to a Government representative may have influenced responses despite reassurances of confidentiality. Hoare and Moon (2010) acknowledged such fears, suggesting the likelihood of underreporting as a potential weakness in the BCS. The BCS addressed the possibility of over-reporting by including a fake drug ‘Semeron’ in the list of possible drugs, excluding data from all participants who reported using this drug (Hoare & Moon, 2010). This approach to attempting to exclude over-reporting was not adopted in the current study, as it was not felt to be required given the more likely inclination to under-report.

The issues of over-reporting and underreporting illicit drug use have been considered from differing perspectives within the literature associated with measuring rates of illicit drug use within sample groups. Methods for considering the problem of unreliable responses tend to involve the use of repeated measures. Such approaches either consider a fixed historical position, such as the age of the respondents first use of a particular drug (Percy et al., 2005) or an admission of using a particular drug in the past, looking for changes in responses in a repeated measure with the same respondent. Denying previous self-reported admissions of using illicit drugs has often been referred to as ‘recanting’ within the associated literature.
Studies conducted in the USA have identified socio-economic background and ethnicity as significant factors in the likelihood of young adults recanting recent admissions of illicit drug use (Johnston & O’Malley, 1997; Fendrich & Rosenbaum, 2003). Johnston and O’Malley (1997) surveyed a group of 18 year-olds in order to identify lifetime use of five drugs (cannabis, cocaine, LSD, tranquillisers and barbiturates), repeating data collection seven times up to the age of 32. The sample initially consisted of 5,300 cases falling to 3,500 cases by the seventh data collection point. Whilst Johnston and O’Malley (1997) gave few details of how they arrived at their conclusions, their study did suggest that participants in certain occupations, such as the police or military, where illicit drug use was less acceptable, were more likely to recant admissions of past drug use. This finding was considered relevant to the current study as it was felt that students entering healthcare professions might feel a similar pressure to deny admissions of past illicit drug use.

In a second study focusing on recanting self-reported illicit drug use, Fendrich & Rosenbaum (2003) used a cross-sectional survey, repeated on eight occasions, with 1405 secondary school pupils undertaking a Drug Abuse Resistance Education [DARE] programme delivered in one state in the USA. Participants were initially sampled during years 5 and 6 (aged 10 – 11 years) and then on a yearly basis until leaving school. The study focused on lifetime admissions of the use of alcohol, tobacco, cannabis and cocaine, and recanting was defined as a previous admission of use followed by a response of never having used the particular drug. Fendrich and Rosenbaum (2003) found that ‘most recanting occurred on the wave subsequent to the initial drug use disclosure’ (p.250), speculating that this could be due to participants ‘forgetting’ their previous disclosure or
concerns over their initial admission of illicit drug use which then encouraged respondents to recant at the next opportunity.

Participants in the current study were asked if they had ever used an illicit drug at both data collection points, thus allowing recanting rates to be identified at the end of the students’ first year of study. A total of 83 students reported at least using one of the seven illicit drugs listed, with some students reporting the use of more than one drug. The recanting rates for the student nurses involved in the current study are given in Table 5.

Table 5. Self-reported illicit drug use and recanting rates for the student nurses.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Self-reported illicit drug use by student nurses at the start of training (n = 83)</th>
<th>Recanted use at end of first year Number (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amphetamine</td>
<td>19</td>
<td>2 (11)</td>
</tr>
<tr>
<td>Cannabis</td>
<td>58</td>
<td>6 (10)</td>
</tr>
<tr>
<td>Cocaine</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>Ecstasy</td>
<td>11</td>
<td>1 (9)</td>
</tr>
<tr>
<td>Heroin</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LSD</td>
<td>8</td>
<td>1 (13)</td>
</tr>
<tr>
<td>Ketamine</td>
<td>5</td>
<td>1 (20)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>115</strong></td>
<td><strong>11 (10)</strong></td>
</tr>
</tbody>
</table>

* Several students reported using more than one drug
  * Some students recanted the use of more than one drug

Whilst the participants in Fendrich & Rosenbaum’s (2003) and Johnston and O’Malley’s (1997) studies were different to the current study their findings indicated the need to consider recanting in the current study. Overall rates of recanting in the current study appeared to be considerably lower than the levels reported by Fendrich & Rosenbaum (2003) of 80% for cocaine use and 32% for
cannabis use. Differences may exist between the UK and USA around the cultural acceptability of some drugs, but the results of the current study tend to suggest more stable reporting than the Fendrich and Rosenbaum (2003) study, giving some support for the consistency of the self-reported measure of illicit drug use used in the current study.

**Characteristics of the student nurses’ summative attitude scores at the start of their training**

The research questions developed for the current study (see p.83-84), initially required a focus on the factors influencing the student nurses’ attitudes at the start of their training. The summative attitude score developed from the questionnaire (Appendix A) provided a numerical score for each participant, between –10 and +10 (see discussion p.135). A score of –10 would indicate a student who had disagreed with all of the statements weighted toward a positive perspective on illicit drug use (Questions 1, 2, 5, 7 and 9) and agreed with all of the statements weighted toward a negative perspective (Questions 3, 4, 6, 8 and 10). This would suggest a student with negative attitudes towards illicit drug use, holding stereotypical views of illicit drug use and drug users, and generally not expressing a tolerant and accepting attitude toward illicit drug use or drug users. In order to gain a score of +10 a student would need to agree with all of the statements suggesting a positive perspective on illicit drug use and disagree with all of the statements suggesting a negative perspective. This would indicate a student who was against stereotypical views of illicit drug users and in favour of a more permissive perspective on illicit drug use in general. Students obtaining scores in between these extremes provided a mixture of positive, negative and neutral (don’t know) responses, however scores moving away from –10 toward +10 suggest an increasing number of positive responses and hence more accepting and tolerant
attitudes. The distribution of the attitude scores for the student nurses, at the start of their training, is visually presented in Figure 8.

**Figure 8.** The student nurses’ attitude scores at the start of training.

Figure 8 visually indicates a degree of normality in the distribution of the students’ scores. A normal distribution would result in all three measures of central tendency (mean, median and mode) having a similar numerical value (Heiman, 1998), which supports the use of the arithmetic mean as an appropriate indication of central tendency.

In the current study, measures of central tendency and dispersion were calculated in order to provide a summary of the student nurses’ attitude scores and to indicate the variability of these scores within each particular group being investigated. The mean attitude score for the student nurses at the start of their training was 2.28. Scores above zero would indicate a bias toward answering more of the Likert statements in a way that would suggest a positive attitude towards illicit drug use or illicit drug users. The student nurses’ summative
attitude scores ranged from the maximum possible score on the attitude scale (+10), gained by only 0.8% \((n = 3)\) of all the students involved in the current study, to the lowest score obtained by any of the students \((-7)\). Gorard (2003) noted that standard deviation figures above the mean value indicate a high level of dispersion within a set of data, which was the case for the student nurses in the current study \((SD = 3.10)\). Coupled with the high range (17) this indicated that there was a considerable degree of dispersion within the group’s scores, suggesting a wide variety of attitudes toward illicit drugs and illicit drug users within the student nurses at the start of their training.

**Research question 1**

The first research question ‘what factors influence the attitudes of student nurses toward illicit drug use at the start of their training?’ required an exploration of the relationship between a range of factors (independent variables) and the summative attitude scores of the student nurses. Research question 1 also had three more specific sub-questions, 1.1, 1.2 and 1.3, considering the impact of specific factors. These sub-questions were:

1.1. Do student nurses with a history of illicit drug use have different attitudes to those with no history of illicit use?

1.2. Do student nurses with friends or family members who have used illicit drugs have different attitudes to those with no friends or family members who have used illicit drugs?

1.3. Do student nurses who grew up in an area or environment where illicit drug use was common have different attitudes to those did not grow up in an area or environment where illicit drug use was common?
In order to answer each of these three sub-questions, the student nurses were grouped together on the basis of their response to each relevant question in the study questionnaire (set as the independent variable). The relationship between these groups and the summative attitude score (set as the dependant variable) was considered by comparing group means. Szafran (2012) pointed out that where there are no differences between these group means this indicates no relationship between the two variables, but where there are differences in the group means the two variables are related.

Bivariate comparisons of group means provides an indication of whether there is an association between variables, but it is important to note that, when drawing conclusions from such findings, inferences of causality should not be based on any simple association (de Vaus, 2001; Szafran, 2012). Inferences of causality require other backing conditions, including consideration of the research design and a logical reason for supporting such causality (de Vaus, 2001; Plowright, 2011). In order to have confidence in claiming causality, it is important to demonstrate that changes in the independent variable preceded changes in the dependent variable, sometimes termed ‘temporal sequence’ (Szafran, 2012). However, in some situations it is not possible or ethically appropriate to use a time sequence, encompassing change in the independent variable in order to see how this influences the dependant variable (de Vaus, 2001). In the current study, measuring the association between personal use of illicit drugs and the participants’ attitudes towards illicit drug use is an example of such a problem with temporal sequencing. Gaining a causal indication of the impact of personal use of illicit drugs on the participants’ attitudes by measuring attitudes prior to and after their first use of illicit drugs would clearly not be feasible. de Vaus (2001) noted that it is possible to use a weaker study design comparing
existing variation in a cross-sectional survey, by looking at the extent to which “those in different categories of the independent variable differ in relation to the outcome variable” (p.50). This process was used in the current study to consider the relationship between the three independent variables, measured for research questions 1.1, 1.2 and 1.3, and the students nurses’ attitude scores. However, such an approach required careful consideration when drawing inferences from any relationship between these variables.

Research sub-question 1.1

Research sub-question 1.1 focused on the student nurses’ personal experience of illicit drug use. These data were gained from question 16 of the study questionnaire, which asked the participants to identify if, and how recently, they had used a list of seven illicit drugs. As discussed above, these questions were designed to allow comparisons to be made with the findings of the BCS for the same year as the current study (Hoare & Moon, 2010). Respondents were asked to tick one of four options ranging from never having tried a particular illicit drug to having tried the drug in the last month (see Figure 6, p.120). A total of 153 out of a potential 154 student nurses completed this question at the start of their training. However, the range of possible responses to this question and the numbers of participants in the current study required the response categories to be reduced to facilitate comparisons. The data on personal drug use were therefore recoded into a dichotomous variable, indicating whether students had ever tried any of the range of illicit drugs mentioned in question 16. The mean values and measures of dispersion for the student nurses who disclosed previous use of illicit drugs and those who did not are presented in Table 6.
Table 6 indicates that there were differences between the mean attitude score for those students who had used illicit drugs ($M = 3.2$) and those students who had not ($M = 1.3$), suggesting that students who had personally tried illicit drugs tended to score higher on the attitude scale than those who had not. A higher score on the summative attitude scale is indicative of a more positive attitude towards illicit drug use and drug users amongst those students who had used an illicit drug.

Whilst it is clear that the means differ between those students who have been grouped on the basis that they disclosed personal use of an illicit drug and those grouped on the basis that they have not, it is important to gain an indication of the size of this difference. Since a random sample was not used in the current study, rendering significance testing inappropriate (Gorard, 2002), the effect size between the two groups was calculated using Cohen’s $d$. Cohen’s $d$ is a commonly used measure of effect size calculated from the group means and standard deviation. Being a standardised measure it is particularly useful “where raw units are used which are quite arbitrary or lack meaning outside the investigation in which they are used” (Cohen, 1988, p.20). This point applies to the summative score generated from the Likert scale, used as an indicator of the students’ attitudes towards illicit drug use, hence providing further support for
the use of Cohen’s $d$ to consider the difference between the group means.

Cohen’s $d$ is easy to calculate, being the distance between the two means, divided by their pooled (or mean) standard deviation (Muijs, 2011). The figure generated indicates the distance between the two group means in units of standard deviation (Pallant, 2010), thus as the number increases so does the extent of the difference. In order to identify the magnitude of the effect measured by $d$, Cohen (1988) suggested that a value of 0.2 would indicate a small effect, 0.5 a medium effect and 0.8 a large effect size. Field (2009) noted that whilst both Cohen’s $d$ and Pearson’s correlation coefficient $r$ are both commonly used to indicate the size of an effect, Cohen’s $d$ is the most appropriate measure to use when comparing effects within two groups, particularly when the groups vary in size. The value of Cohen’s $d$, obtained for the difference between the group means for those students who had used illicit drugs and those who had not, indicated a medium effect ($d = 0.64$). As Cohen (1988) pointed out, the decision to accept a high, medium or low effect size as important in a particular study is somewhat arbitrary. This decision can depend on the nature of what is being measured and compared in the research in question, the design of the research study and whether the research is being conducted in a new field of enquiry or is supporting an existing model or research findings. Cohen (1988, p.26) describes a medium effect size as “one large enough to be visible to the naked eye”, thus differences between groups are discernable to an observer during normal contact or experience. This level was considered as an important level in the current study, setting a tangible difference between the group means for categories of the independent variables being compared. Values of $d$ below this
point were considered as insufficient in terms of suggesting a difference between group means.

Differences in the range of the summative attitude scores between those students who had used illicit drugs and those who had not were also evident in the data (see Table 6, p.174). This indicated a slightly wider variation between the highest and the lowest summative attitude score for the sub-group of students who had not used illicit drugs. In addition to differences in the range, the minimum score obtained by any of the students who had not used an illicit drug was −7, which equated to the lowest score on the attitude scale obtained by any student nurse in the current study. This was considerably lower than the minimum figure of −3 obtained by a student who had used an illicit drug. A difference of −4 on the summative attitude scale would indicate that at least two questions on the 10-point Likert scale had been answered to indicate more negative attitudes. The maximum score for a student who had used an illicit drug was +10, which equated to the highest possible score on the attitude scale, and was higher than the maximum score obtained by the students who indicated that they had not used an illicit drug (+8). A difference of +2 on the summative attitude scale would indicate that at least one question on the 10-point Likert scale had been answered to indicate more negative attitudes.

Research sub-question 1.2

Research sub-question 1.2 moved the focus from illicit drug use by the student nurse, to use by the student’s friends or family members. Illicit drug use by family or friends was considered by analysing the participants’ responses to question 17 on the questionnaire (‘do you know of any friends or family members who use illicit drugs?’). Of the
147 students who completed this question, 89 indicated that they were aware of family and friends who had used illicit drugs, and 58 indicated that they were not. The group means and measures of dispersion for this variable are presented in Table 7.

Table 7. Mean attitude scores and measures of dispersion grouped by awareness of illicit drug use by family or friends.

<table>
<thead>
<tr>
<th>Illicit drug use by family or friends</th>
<th>Mean</th>
<th>Number</th>
<th>Std. Deviation</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>3.04</td>
<td>89</td>
<td>3.17</td>
<td>15</td>
<td>-5</td>
<td>10</td>
</tr>
<tr>
<td>no</td>
<td>1.24</td>
<td>58</td>
<td>2.70</td>
<td>15</td>
<td>-7</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>2.29</td>
<td>152</td>
<td>3.11</td>
<td>17</td>
<td>-7</td>
<td>10</td>
</tr>
</tbody>
</table>

The mean attitude score was higher ($M = 3.04, SD = 3.17$) when the student answered ‘yes’ to an awareness that family or friends had used illicit drugs, and lower ($M = 1.24, SD = 2.7$) when they answered ‘no’. In a very similar result to the impact of personal use, these group mean differences suggested that attitude scores tended to be higher and therefore more positive toward illicit drug users when students were aware of family or friends who had used illicit drugs. Calculating the effect size from the results presented in Table 7, gave a medium effect size of $d = 0.61$ indicating a discernable difference between groups. In addition, the pattern of minimum and maximum attitude scores obtained within each sub-group differed in a similar way to those identified for personal use of illicit drugs, although the difference in the minimum values was not as pronounced as it was for personal use of illicit drugs.

Research sub-question 1.3

Sub-question 1.3 focussed on the student nurses’ perceptions of the commonality of illegal drug use in the area or environment in which the student nurse grew up. Data collected from question 18 in the
questionnaire (see Appendix A) were used to categorise students on this independent variable. The response category ‘don’t know’ was included as an option in this question as this was suggested as important by students in the piloting stage of testing the questionnaire. Feedback from the pilot study suggested that an answer of ‘don’t know’ might be a useful option for respondents who were less aware of drug use in their environment or for respondents who came from different cultural backgrounds, thus impacting on their definition of illicit drug use. Table 8 presents the number of students in each response category and the group mean values and dispersion for this independent variable.

Table 8. Mean attitude scores and measures of dispersion grouped by the commonality of illicit drug use in the childhood area/environment.

<table>
<thead>
<tr>
<th>The commonality of drug use in the area</th>
<th>Mean</th>
<th>Number</th>
<th>Std. Deviation</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>agree</td>
<td>3.23</td>
<td>47</td>
<td>3.38</td>
<td>15</td>
<td>-5</td>
<td>10</td>
</tr>
<tr>
<td>disagree</td>
<td>2.00</td>
<td>77</td>
<td>3.15</td>
<td>15</td>
<td>-7</td>
<td>8</td>
</tr>
<tr>
<td>don’t know</td>
<td>1.50</td>
<td>28</td>
<td>2.06</td>
<td>9</td>
<td>-3</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>2.29</td>
<td>152</td>
<td>3.11</td>
<td>17</td>
<td>-7</td>
<td>10</td>
</tr>
</tbody>
</table>

The mean attitude scores only differed slightly between responses of ‘disagree’ ($M = 2.00$, $SD = 3.15$) and ‘don’t know’ ($M = 1.50$, $SD = 2.06$) with an effect size just below the point considered small by Cohen (1988) $d = 0.19$. Participants who agreed that drug use was common in the area/environment in which they grew up did have a higher mean score ($M = 3.32$, $SD = 3.38$) than those who responded with a ‘disagree’ or ‘don’t know’. There was a small effect size ($d = 0.38$) between student nurses who indicated ‘agree’ and those who indicated ‘disagree’ and a medium effect between ‘agree’ and ‘don’t know’ ($d = 0.63$).
These results do suggest an impact on the group mean attitude scores linked to the student nurses awareness of illicit drug use in the childhood area/environment in which they grew up. Student nurses in the group who agreed that illicit drug use was common gained the highest mean score, indicating a greater level of acceptance and tolerance toward illicit drug use and drug users. Students who indicated that they were unaware of illicit drug use achieved the lowest group mean, suggesting higher levels of intolerance and more moralistic views on illicit drug use.

Measures of dispersion showed the same pattern of difference between ‘agree’ and ‘disagree’ as identified for the variable considering illicit drug use by family or friends (see Table 7, p.177). However, the students who indicated ‘don’t know’ had a much lower range of scores (-3 to +6) than any of the other sub-groups in this question. This indicated more consistent attitude scores in the sub-group who reported that they were unaware of the level of illicit drug use in the environment in which they grew up, than the other sub-groups.

Summary of findings for research sub-questions 1.1, 1.2 and 1.3

As noted above it is important not to infer causal relationships from the associations between the factors (variables) measured for research sub-questions 1.1, 1.2 and 1.3 and the student nurses’ summative attitude scores. However, comparing the mean attitude scores for cases grouped together on the basis of their response to each of the relevant independent variables, suggested that student nurses who reported personal experience of using illicit drugs, indicated that they were aware of illicit drug use by family or friends or stated that the activity was common in the area in which they
grew up, tended toward a higher summative attitude score. Bivariate analysis of these three independent variables in the current study indicated associations between attitudes and familiarity with illicit drug use. However, in order to fully investigate the contribution of each of these variables, and exclude the influence of other variables on the summative attitude score it was necessary to undertake further multivariate analysis, the results of which will be discussed at a later point in this chapter.

In addition to collecting data to consider the personal, social and environmental influences on the student nurses’ summative attitude scores, data pertaining to other potentially important factors (independent variables) were also collected in the current study. Each of these independent variables will be discussed and, where appropriate, their association with the student nurses’ summative attitude scores considered using bivariate approaches.

**Religion**

One factor identified in existing research as an important influence on attitudes towards illicit drug use is religion. In question 13 of the study questionnaire the student nurses were asked to state their religion in order to determine if religious affiliation might be associated with differences in attitude scale scores at point of entry to nurse training. This question gained a response from 112 student nurses and the number of students reporting belonging to different religions are presented in Table 9.

In order to allow adequate numbers in each category for the purpose of analysis, these data were recoded into a new dichotomous variable with the categories religious and non-religious. This resulted in an
even division between nursing students who stated their religion ($n = 56$) and those who identified no religion ($n = 56$). The group reporting no religion had a slightly higher mean score ($M = 2.5$, $SD = 3.5$) than the group indicating a religious affiliation ($M = 1.71$, $SD = 3.04$). This indicated that there was a relationship between expressing an affiliation to a religion and the summative attitude score. Students who indicated that they had no affiliation to a religion had a higher group mean, suggesting more tolerant attitudes to drug use and drug users. However, the effect size was small ($d = 0.24$), indicating that religion did not have the same magnitude of effect on the student nurses’ attitude score as being familiar with illicit drug use through personal, social or environmental experiences.

### Table 9. Self-reported religious affiliation of the student nurses.

<table>
<thead>
<tr>
<th>Religious affiliation</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>56</td>
<td>50.0</td>
</tr>
<tr>
<td>Christian</td>
<td>49</td>
<td>43.8</td>
</tr>
<tr>
<td>Muslim</td>
<td>3</td>
<td>2.7</td>
</tr>
<tr>
<td>Buddhist</td>
<td>2</td>
<td>1.8</td>
</tr>
<tr>
<td>Sikh</td>
<td>1</td>
<td>.9</td>
</tr>
<tr>
<td>Hindu</td>
<td>1</td>
<td>.9</td>
</tr>
<tr>
<td>Total</td>
<td>112</td>
<td></td>
</tr>
</tbody>
</table>

### Ethnicity

Question 15 asked the student nurses to identify their ethnicity by ticking one option from the 16 ethnic categories (see Appendix A), used in the 2001 UK census (Office for National Statistics [ONS], 2003). The BCS identified differences in drug using behaviour associated with ethnicity (Hoare & Moon, 2010), hence it was considered feasible that attitudes to illicit drug use may also vary.
However, given the fact that the majority of the student nurses (93%) indicated that they were of ‘White British’ ethnicity, comparing group mean attitude scores was not viable, even if a new dichotomous variable were created from the five categories. Despite these problems, data identifying the student nurses ethnicity was useful in comparing the current study with existing research. The data gained from the 115 student nurses who indicated their ethnicity are presented in table 8, alongside data from a national survey of student nurses (Unison, 2005) and data from the general population census of the UK (ONS, 2003).

Comparisons with national figures for the ethnicity of nursing recruits does raise problems since the classifications used by Higher Education Statistics Agency [HESA] (2011) for ethnicity do not match those of the 2001 census and these statistics do not report nursing as a distinct subject area. A study by UNISON (2005) does present information on ethnicity in a comparable format to the current study and the corresponding figures are presented in Table 10.

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Number (current study)</th>
<th>Percentage of</th>
<th>Student nurses in current study</th>
<th>UK student nurses (UNISON, 2005)</th>
<th>Population of East Midlands (ONS, 2003)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White British</td>
<td>107</td>
<td>93.1</td>
<td>83.0</td>
<td>91.0</td>
<td></td>
</tr>
<tr>
<td>Pakistani</td>
<td>3</td>
<td>2.6</td>
<td>1.0</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>Black African</td>
<td>2</td>
<td>1.7</td>
<td>7.0</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>Indian</td>
<td>2</td>
<td>1.7</td>
<td>1.0</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Chinese</td>
<td>1</td>
<td>0.9</td>
<td>1.0</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>7.0</td>
<td>4.8</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>115</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The UNISON (2005) figures do indicate a smaller proportion of ‘white British’ student nurses than was identified in the current study. This
could indicate differences in the ethnicity of nursing students in regions of the UK outside the East Midlands, where the students involved in the current study were recruited, or it could indicate a higher proportion of students studying mental health or learning disabilities nursing in the UNISON (2005) study. This is because the mental health and learning disabilities branches of nursing have traditionally recruited a higher proportion of BME students than the adult and child branches of nursing (Nursing & Midwifery Admissions Service [NMAS], 2006). Figures for the East Midlands region of the UK gained from the 2001 census (ONS, 2003) are very similar to those of the current study, which may support the fact that nursing has tended to recruit a high number of students who are locally based (NMAS, 2006).

Age
Studies which consider drug using behaviour such as the BCS have found differences in illicit drug use based on age, with individuals between the ages of 16 and 24 being the most likely to use illicit drugs (Hoare & Moon, 2010). Parker et al. (1998) indicated that the process of normalisation of illicit drug use amongst young adults involved developing a more accepting attitude towards illicit drug use and drug using peers. It was therefore considered possible that there might be a relationship between the ages of the student nurses involved in the current study and their attitude score. Since these two variables were in a scale format the relationship between them was investigated using Pearson’s correlation coefficient $r$. Pearson’s correlation coefficient $r$, unlike Cohen’s $d$, is constrained to a possible range between $-1$ and $+1$, with values of $-1$ and $+1$ indicating perfect negative and positive correlations respectively and a value of zero indicating no correlation (Field, 2009). The value of Pearson’s $r$ differs from Cohen’s $d$, with $r = .10$ indicating a small effect, $r = .30$
indicating a medium effect and $r = .50$ indicating a large effect (Field, 2009). The results of the Pearson’s test only indicated a weak positive correlation between the student nurses’ age and attitude score ($r = .048, n = 152$), suggesting a slight increase in attitude score as age increased. This weak association between the age of the student nurses and the attitude score generated in the current study was confirmed by inspecting the scatter plot generated from the two variables. This finding does not support the results of a study undertaken by Carroll (1995, 1996), who indicated that younger qualified nurses were more likely to have positive attitudes towards working with intravenous drug users than older qualified nurses.

**Education linked to illicit drugs**

Data obtained from the student nurses relating to previous education on illicit drugs proved difficult to interpret. Respondents were asked for an approximation of the number of hours of education on illicit drugs they had received prior to starting their course (question 22). The largest proportion of the student nurses (72%, $n = 111$) suggested that they had received no education at all prior to entry onto their course, 18% ($n = 27$) failed to provide any data and the remaining 10% ($n = 16$) reported a range of 0.5 hours to 80 hours. Question 23 provided a tick box for students to indicate the stage in their education where this teaching had taken place. Four options where provided ranging from primary school to university (see Appendix A). Of the 72% of students who reported no hours of illicit drug education, all suggested that this had occurred in a particular environment. Since these positions are clearly contradictory, it seems that the respondents had misinterpreted questions, thus reducing the validity of any results from further analysis. These issues were not foreseen from piloting the study questionnaire, however respondents in the interviews were asked to comment on where they felt their
knowledge of illicit drugs had come from, thus the source of the participants’ knowledge of illicit drugs was discussed in the qualitative interviews.

Despite problems with the data, the relationship between the numbers of reported hours of education linked to illicit drug use and the student nurses’ attitude scores was investigated using Pearson’s correlation coefficient. The results of this test did indicate a weak positive correlation ($r = .094$, $n = 127$) between hours of education around substance misuse and the student nurses’ attitude scores in the current study. Thus there was a slight increase in attitude scores as hours in education increased, however, as previously noted this result should be viewed with caution.

**Level of entry qualification**

The student nurses were also asked to state their highest level of qualification prior to starting nurse education in question 14 of the questionnaire. There is some disagreement in existing research around the effect of different levels of qualifications on the attitudes of health and social care workers towards working with illicit drug users. However, the student nurses in the current study did not present a particularly even distribution of entry qualifications, as indicated in Figure 9.

The majority of the student nurses involved in the current study entered training with A level or NVQ qualifications (44%, $n = 67$), with only a small proportion (8%, $n = 12$) having gained a degree and none having gained a postgraduate qualification. Since the data formed an ordinal scale with GCSE’s at the lowest point and postgraduate qualifications set at the highest point, Spearman’s rank-
order correlation was used to ascertain if there was a relationship between the student nurses’ highest level of entry qualification and their attitude scores. Spearman’s test transforms each variable into ranked data and then calculates the correlation between the two variables using Pearson’s formula, thus providing a value for $r$ in the same range (-1 to +1) (Szafran, 2012). The results of Spearman’s test on the student nurses’ highest entry qualification was $r = -0.120$ ($n = 151$) which indicated a weak negative relationship between level of entry qualification and the summative attitude score. This suggested that for the student nurses involved in the current study, attitude scores slightly decreased as level of qualification increased.

![Figure 9. Highest qualification of the student nurses on entry to training ($n = 151$).](image)

**Summary for question 1**

The characteristics of a range of factors (independent variables) measured for the student nurses were investigated and where
possible their impact on the student nurses’ summative attitude score (dependent variable) assessed. Measures of personal illicit drug use and religion required recoding into new variables in order to consider their impact on the summative attitude score. As noted above, a medium effect size (0.5) on Cohen’s $d$ was considered appropriate in order to signify a discernable effect on the attitude score and three independent variables achieved this effect size. Table 11 provides a list of the variables considered in this bivariate analysis and their effect size relating to the strength of their association with the summative attitude score. Where these effect sizes were originally measured as a correlation coefficient ($r$) they have been converted to Cohen’s $d$ for Table 11 in order to allow ease of comparison with the other factors (independent variables) and their strength of their association with the attitude scale.

Table 11. List of factors (independent variables) and the strength of their association with the attitude score (dependent variable).

<table>
<thead>
<tr>
<th>Independent variable (IV)</th>
<th>Level of comparison</th>
<th>$d$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal use of illicit drugs</td>
<td>Yes - No</td>
<td>0.64**</td>
</tr>
<tr>
<td>Use of illicit drugs by family or friends</td>
<td>Yes - No</td>
<td>0.61**</td>
</tr>
<tr>
<td>Commonality of illicit drug use in the area</td>
<td>Disagree - Don’t know</td>
<td>0.19</td>
</tr>
<tr>
<td></td>
<td>Agree - Disagree</td>
<td>0.38*</td>
</tr>
<tr>
<td></td>
<td>Agree - Don’t Know</td>
<td>0.68**</td>
</tr>
<tr>
<td>Religious affiliation</td>
<td>Yes - No</td>
<td>0.24*</td>
</tr>
<tr>
<td>Age</td>
<td>Scale</td>
<td>0.10</td>
</tr>
<tr>
<td>Hours in education (focused on illicit drugs)</td>
<td>Scale</td>
<td>0.19</td>
</tr>
<tr>
<td>Highest entry qualification</td>
<td>Ordinal scale</td>
<td>0.24*</td>
</tr>
</tbody>
</table>

*In Cohen’s (1988) $d$ 0.2 would indicate a small effect, **0.5 would indicate a medium effect, ***0.8 would indicate a large effect size.

Table 11 indicates that only the variables relating to personal experiences of illicit drug use, awareness of illicit drug use by family
or friends and the commonality of illicit drug use in the area in which the student grew up, achieved a medium effect size. None of the other variables considered using bivariate approaches registered a medium or stronger effect size. However, theoretical models that attempt to explain decisions to use illicit drugs and logical reasoning would suggest that these three variables are also likely to be related to each other. It is reasonable to assume that growing up in an area where illicit drug use is more common, having friends and family who have used illicit drugs, and personal use of illicit drugs may be associated with each other. However, it is also important to note that such a perspective does not necessarily presume any causal link between these variables or the individuals’ attitudes towards illicit drugs. It is also feasible to suggest that other variables such as age, may also be associated with the influence of these three variables. For example the attitudes of younger individuals may be more heavily swayed by the influence of family and friends. Multivariate analysis was also undertaken in the current study with the aim of revealing a more complete model, explaining the variation in the attitude scores identified amongst the student nurses. The approach used and the results from this multivariate analysis will be discussed below, after considering the data associated with research questions 2 and 3.

**Research question 2**

Following on from the within groups analysis of the data pertaining to the student nurses, research question 2 required comparisons to be made between the mean attitude scores for the student nurses and all of the other sub-groups of health and social care students at the start of their training. The mean attitude scores for each group of students involved in the current study are visually represented in Figure 10.
Figure 10. Mean attitude scores for each sub-group (start of training).

Figure 10 illustrates the differences between the mean attitude scores for each of the groups of students involved in the current study at the start of their training. The student nurses gained the lowest group mean attitude score ($M = 2.28$) and the clinical psychology trainees obtained the highest mean score ($M = 5.63$). Table 12 presents the mean values and measures of dispersion for each student group at the start of their courses.

Table 12. Mean attitude scores and measures of dispersion for each student group at the start of their courses.

<table>
<thead>
<tr>
<th>Student Group</th>
<th>Mean</th>
<th>Number</th>
<th>Std. Deviation</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Nurse</td>
<td>2.28</td>
<td>153</td>
<td>3.10</td>
<td>17</td>
<td>-7</td>
<td>10</td>
</tr>
<tr>
<td>Health &amp; Social Care</td>
<td>3.24</td>
<td>67</td>
<td>2.87</td>
<td>13</td>
<td>-4</td>
<td>9</td>
</tr>
<tr>
<td>Midwife (pre-reg)</td>
<td>3.65</td>
<td>20</td>
<td>2.46</td>
<td>8</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Midwife (post-reg)</td>
<td>4.50</td>
<td>8</td>
<td>2.33</td>
<td>7</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Social Work</td>
<td>4.57</td>
<td>44</td>
<td>2.65</td>
<td>11</td>
<td>-1</td>
<td>10</td>
</tr>
<tr>
<td>Clinical Psychologist</td>
<td>5.63</td>
<td>16</td>
<td>1.36</td>
<td>5</td>
<td>3</td>
<td>8</td>
</tr>
</tbody>
</table>

Comparisons between the group means for the student nurses and each of the comparison groups found a small effect size between the
student nurses and the health and social care students ($d = 0.32$), a medium effect size between the student nurses and the pre-registration midwifery students ($d = 0.5$) and a large effect size between the student nurses and post-registration midwives ($d = 0.8$), the student nurses and the social work students ($d = 0.8$) and the student nurses and the clinical psychology trainees ($d = 1.5$). These effect sizes confirm the indication given in Figure 10 of substantial differences between the mean attitude scores for the student nurses and post-registration midwifery students, the social work students and the clinical psychology trainees.

In conjunction with the large effect size ($d = 1.5$) generated from comparing the mean attitude score of the student nurses and the clinical psychology trainees, there are also other noticeable group differences identified in Table 12. The range of attitude scores for the student nurses was considerably larger (17) than that of the clinical psychology trainees (5). This indicates that the clinical psychology trainees scored far more consistently on the attitude scale than the student nurses. The student nurses had the largest range of all the subgroups involved in the current study indicating a considerable diversity of attitudes expressed within the group. Larger numbers of student nurses may account for some increased degree of diversity, however this does not appear to be supported by the ranges of the other subgroups of students. For example, the pre-registration midwifery students had a greater range (8) than the clinical psychology trainees (5), despite having only slightly higher numbers of students ($n = 20$).
Summary for research question 2

To briefly summarise the results for question 2, there were clear differences between the mean attitude scores of the different subgroups of health and social care students measured on the summative attitude scale. The range of the student nurses’ summative attitude scores also indicated that they had the widest diversity in their attitudes towards illicit drug use and drug users than any of the other student groups at the start of training.

Research question 3

Research question 3 focused on the possibility of changes in the student nurses’ summative attitude score over their first year of training. Thus a within-group analysis was carried out comparing the attitude scores of the student nurses at the start of their training with their scores obtained at the end of their first year. Since the design of the current study allowed the attitude scores obtained for each participant at the start of training to be matched with their score at the end of the first year, it was possible to use an approach to analysis designed for repeated measures.

Field (2009) noted that in order to decide on the most suitable test to use in a repeated measures study it is important to consider the distribution of the difference between the matched scores, rather than simply considering the distribution of scores at each time-point. Hence the difference between the two scores on the attitude scale was first coded as a new variable in SPSS. The distribution of this new variable was then considered for all student nurses with two matched questionnaires (n = 115) (see Figure 11).
Figure 11. Difference between the summative attitude scores for the student nurses.

Figure 11 indicates that this distribution indicates a degree of non-normality. Given the characteristics of the data, a non-parametric Wilcoxon signed-rank test was considered the most appropriate option in order to consider the magnitude of the difference between the two attitude scores. The Wilcoxon signed-rank test, the non-parametric equivalent of a paired samples t-test, is an appropriate approach to analysing the relationship between two repeated measures in non-parametric data (Polgar & Thomas, 1991). The test works by first comparing the difference between scores for each case. Cases where there is no difference are then disregarded from further analysis and where there is a difference between scores, cases are ranked in order of magnitude (Field, 2009). The test statistic produced by this process (z) can then be used to calculate an effect size (r) by dividing z by the square root of N. The results of the Wilcoxon test on the student nurses’ attitude scores indicated that there was only a small effect size when comparing the student nurses scores at the start of their training and at the end of their first year (z = -1.83, r = 0.17). This indicates that whilst the mean values (for
those student nurses where it was possible to match the two questionnaires \((n = 116)\) did improve between the start of their training \((M = 2.11)\) and the end of the first year \((M = 2.76)\) the magnitude of this increase was small. In addition to analysing the matched data, comparisons between the mean values obtained from all of the student nurses who completed questionnaires at the start of training \((M = 2.28, SD = 3.10, N = 153)\) and those obtained at the end of the first year \((M = 2.74, SD = 2.96, N = 130)\) resulted in an effect size below Cohen’s (1988) definition of small \((d = 0.15)\), thus adding support to the findings from the Wilcoxon signed-rank test.

**Experience of working with illicit drug users**

Participants in the current study were asked about any contact they may have had with illicit drug users in practice settings. They were asked to identify the frequency of contact in question 19 of the study questionnaire (see Appendix A), if they felt that illicit drug users were ‘thought of differently’ in the practice setting (question 20) and finally if they had ‘noticed a different level of care’ (question 21).

Question 19 provided five tick-box options (daily, weekly, monthly, never and don’t know) in order to identify the frequency of any contact (see Appendix A). There was an almost equal division between those students who reported contact \((49\%, n = 58)\) and those who reported no contact or no awareness of any contact at the end of the first year \((51\%, n = 62)\). Differences were apparent in the mean values and measures of dispersion for each response category for question 19, which are presented in Table 13.
However, despite differences in the mean values, no clear pattern in the relationship between regularity of contact with illicit drug users in the practice setting and the summative attitude scores emerged. This is illustrated by considering the mean value for ‘weekly’ contact ($M = 3.50, SD = 2.74$), which is higher with a lower standard deviation, than either ‘daily’ contact ($M = 2.88, SD = 3.02$) or ‘monthly’ contact ($M = 2.96, SD = 3.38$).

In order to investigate if there were any association between any contact and the students’ attitude scores, this variable was collapsed into a new dichotomous variable with a category containing those students indicating that they had been in contact with illicit drug users, either on a ‘daily’, ‘weekly’ or ‘monthly’ basis, and a second category for those students who indicated ‘never’ and ‘don’t know’. The student nurses who indicated contact gained a higher mean value ($M = 3.07, SD = 3.09$) than the students who reported never/don’t know ($M = 2.52, SD = 2.84$). However, the value of Cohen’s $d$, obtained for the difference between these group means indicated an effect size less than Cohen’s (1988) classification of small ($d = 0.19$). These findings did not support any substantial level of difference in the student nurses’ summative attitude scores, linked to contact with illicit drug users in practice. However, they did confirm that roughly half of the student nurses in the current study were able to identify

### Table 13. Mean attitude scores and measures of dispersion at the end of year 1 grouped by contact with illicit drug users.

<table>
<thead>
<tr>
<th>Contact by end of year 1</th>
<th>n</th>
<th>Percentage</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>17</td>
<td>14%</td>
<td>2.88</td>
<td>3.02</td>
<td>10</td>
<td>-2</td>
<td>8</td>
</tr>
<tr>
<td>Weekly</td>
<td>14</td>
<td>12%</td>
<td>3.50</td>
<td>2.74</td>
<td>8</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Monthly</td>
<td>27</td>
<td>23%</td>
<td>2.96</td>
<td>3.38</td>
<td>12</td>
<td>-3</td>
<td>9</td>
</tr>
<tr>
<td>Never</td>
<td>16</td>
<td>13%</td>
<td>3.06</td>
<td>3.02</td>
<td>10</td>
<td>-2</td>
<td>8</td>
</tr>
<tr>
<td>Don’t know</td>
<td>46</td>
<td>38%</td>
<td>2.33</td>
<td>2.79</td>
<td>10</td>
<td>-2</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.00%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
that they had come into contact with illicit drug users at some point in their first year of training.

Experiences in practice settings
In addition to asking the student nurses to provide information about the frequency of their contact with illicit drug users in practice settings, question 20 asked if they felt that illicit drug users were thought of differently to other patients or clients. At the end of their first year 119 students answered this question with 65 students (55%) indicating that they felt that illicit drug users were thought of differently, 32 students (27%) indicated that they didn’t know and only 23 students (18%) felt that they were not. Whilst comparing mean values between the different categories of response to this question indicated that there was no association with the students’ summative attitude scores, it does indicate an interesting perspective. The students’ response to question 20 tends to support the point that illicit drug users are considered in more negative terms than other groups of service users.

The students were also asked if they felt that illicit drug users were treated differently in practice settings, in question 21 of the study questionnaire (see Appendix A). Again 119 of the student nurses provided an answer to this question at the end of their first year of training. However, in contrast to question 20 there was a far more even distribution of answers to this question, with 40 students (34%) stating that they felt there was a difference, 44 (37%) stating that there was not and 35 (29%) answering that they did not know. The answers provided for this question do appear somewhat contradictory to the numbers of students indicated in Table 13 (p.194) as having contact with illicit drug users. Since there were only 58 students who reported that they were aware of coming into contact with illicit drug users in the practice setting in question 19, this raises questions
around the validity of 84 students being able to comment on the treatment of illicit drug users in the practice setting in question 21. Despite this issue the point that 34% \((n = 40)\) of student nurses felt that illicit drug users were treated differently raises concerns in terms of prejudicial attitudes and how this influences care delivery.

**Research question 3.1**

Research sub-question 3.1 required consideration of the summative attitude scores for the comparison groups at the start and end of their first year on their respective courses in order to ascertain if similar patterns to the student nurses were evident in the data. The mean attitude scores and measures of dispersion for all of the sub-group of students at the start of their training and at the end of their first year on their respective courses are given in Table 14.

Table 14. Mean attitude scores and measures of dispersion at the start and end of training for each student group.

<table>
<thead>
<tr>
<th>Student group</th>
<th>Mean</th>
<th>Number</th>
<th>SD</th>
<th>Range</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At the start of training</td>
<td>2.28</td>
<td>153</td>
<td>3.10</td>
<td>17</td>
<td>-7</td>
<td>10</td>
</tr>
<tr>
<td>At the end of first year</td>
<td>2.74</td>
<td>130</td>
<td>2.96</td>
<td>12</td>
<td>-3</td>
<td>9</td>
</tr>
<tr>
<td>Health and Social Care students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At the start of training</td>
<td>3.24</td>
<td>67</td>
<td>2.87</td>
<td>13</td>
<td>-4</td>
<td>9</td>
</tr>
<tr>
<td>At the end of first year</td>
<td>3.00</td>
<td>80</td>
<td>3.17</td>
<td>16</td>
<td>-6</td>
<td>10</td>
</tr>
<tr>
<td>Midwifery (pre-reg) students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At the start of training</td>
<td>3.65</td>
<td>20</td>
<td>2.46</td>
<td>8</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>At the end of first year</td>
<td>3.31</td>
<td>80</td>
<td>2.15</td>
<td>8</td>
<td>-1</td>
<td>7</td>
</tr>
<tr>
<td>Midwife (post-reg) students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At the start of training</td>
<td>4.50</td>
<td>8</td>
<td>2.33</td>
<td>7</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>At the end of first year</td>
<td>4.14</td>
<td>7</td>
<td>2.41</td>
<td>8</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Social work students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At the start of training</td>
<td>4.57</td>
<td>44</td>
<td>2.65</td>
<td>11</td>
<td>-1</td>
<td>10</td>
</tr>
<tr>
<td>At the end of first year</td>
<td>4.38</td>
<td>42</td>
<td>2.40</td>
<td>15</td>
<td>-5</td>
<td>10</td>
</tr>
<tr>
<td>Clinical psychology trainees</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At the start of training</td>
<td>5.63</td>
<td>16</td>
<td>1.36</td>
<td>5</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>At the end of first year</td>
<td>5.60</td>
<td>15</td>
<td>1.84</td>
<td>6</td>
<td>2</td>
<td>8</td>
</tr>
</tbody>
</table>
Table 14 indicates differences between the pattern of change evident in the comparison groups and the student nurses. The mean scores for all the comparison groups fell slightly between the start of their course and the end of the first year. This was the opposite to the student nurses mean score which rose slightly over the two time points, indicating slightly improved attitudes. In addition the range of attitude scores obtained by the student nurses fell from 17 to 12 over the timeframe and the lowest attitude score obtained within the group increased from −7 to −3 over the year. This indicates that attitudes within the group tended to improve and group diversity diminish over the study timeframe. This improvement was not evident in the comparison groups with the minimum value for social work students falling from −1 to −5 between to two time points. Whilst change was evident in all of the mean values presented in Table 15 it was important to gain some indication of the magnitude of this change, therefore Cohen’s $d$ was calculated for each sub-group (see Table 15).

Table 15. Effect sizes for the changes in attitude scores between the start of training and the end of the first year.

<table>
<thead>
<tr>
<th>Student groups</th>
<th>Effect size (Cohen’s $d$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse</td>
<td>0.15</td>
</tr>
<tr>
<td>Health and Social Care</td>
<td>0.08</td>
</tr>
<tr>
<td>Midwife (pre-reg)</td>
<td>0.15</td>
</tr>
<tr>
<td>Midwife (post-reg)</td>
<td>0.15</td>
</tr>
<tr>
<td>Social Work</td>
<td>0.08</td>
</tr>
<tr>
<td>Clinical Psychologist</td>
<td>0.02</td>
</tr>
</tbody>
</table>

The results of these tests revealed that all of the differences between the attitude scores obtained by each sub-group of students at the start and end of the first year were below Cohen’s (1988) value of 0.2, representing a small effect size. Any changes evident in the
mean values were therefore limited in magnitude, indicating no substantial changes in the attitudes of each sub-group of students over their first year on their respective courses.

**Multivariate analysis**
Exploring the independent variables measured in the study questionnaire and considering the properties of the summative attitude scale provided some useful insights into the factors influencing the student nurses’ attitude scores. Bivariate analysis also allowed comparisons to be made between the different groups of students involved in the current study and enabled comparisons between attitudes at the start and end of the students first year. However, considering the relationship between a single independent variable and a dependent variable has limitations, since it is not possible to ascertain whether there are other variables influencing any measured association (Szafran, 2012). Multivariate analysis was used to consider the impact of the range of factors, measured in the study questionnaire, on the students’ summative attitude score.

**Recoding dummy variables**
Since the majority of the independent variables in the current study were categorical in nature and some contained more than two levels of response, several variables needed to be recoded into ‘dummy variables’ (Miles & Shevlin, 2001; Azen & Walker, 2011). Dummy variables were created for question 18 in the questionnaire (relating to the respondents knowledge of the commonality of illicit drug use in their childhood environment), question 14 (relating to the participants’ entry qualifications) and the variable created from the course the students were studying. Field (2009) suggested that the reference category in dummy coding should be selected as either the
category containing the majority of informants or based on a specific interest (hypothesis) directing the analysis. As the main focus of the current study was on the student nurses, they were set as the reference category for the dummy variables created from the student groups. For the highest level of entry qualification ‘A level/NVQ’ was the most common qualification for the student nurses, hence this category was chosen as the reference category for the dummy variables. This allowed comparisons between students with the most frequently reported entry qualification and those students with more atypical entry qualifications. In order to enter data from question 18, relating to the commonality of illicit drug use in the childhood environment, the category ‘agree’ was set as the reference category. Familiarity with illicit drug use during early adulthood has been identified as an important factor in more permissive attitudes towards illicit drug use (Parker et al., 1998). Since ‘agree’ corresponded to those students who were familiar with illicit drug use in their childhood environment it was felt important to compare these students against the other two categories (‘don’t know’ and ‘disagree’), where students did not indicate familiarity or knowledge of illicit drug use. In addition the ‘agree’ category appeared to be the most important when comparing group means in the bivariate analysis (see above), contrasting with both of the other categories in terms of relationships with the mean summative attitude scores.

All of the independent variables were initially introduced into the analysis by forced entry. The order of variable entry can also influence the results of multivariate regression (Gorard, 2003). The independent variables in the current study were introduced into the analysis in an order which approximated the point at which it occurred in an individual’s lifespan, thus gender was entered first with choice of course of study entered last. The initial model contained all
of the variables measured in the current study, which could be linked to the participants’ summative attitude score at the start of training. Appendix I provides a brief description of all the variables in the first regression model and notes the order in which they were introduced and removed.

The final regression model

The output obtained from introducing all of the independent variables into the regression analysis were inspected and individual variables removed in turn when they were identified as not contributing to the models predictive ability. After each independent variable was removed the analysis was re-run in order to check for observed changes in the percentage of variance explained by the model. The final model ($F(6, 290) = 11.577, p < .000$) explained 19% of the variance ($R^2 = .193$) and details of the variables, which remained in the final model, are given in Table 16.

Table 16. Final regression model.

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Beta</td>
</tr>
<tr>
<td>Constant</td>
<td>3.80</td>
<td></td>
</tr>
<tr>
<td>Family</td>
<td>-1.29</td>
<td>-0.20</td>
</tr>
<tr>
<td>Ever used</td>
<td>-1.13</td>
<td>-0.19</td>
</tr>
<tr>
<td>A-Level/NVQ vs Degree b</td>
<td>-1.28</td>
<td>-0.12</td>
</tr>
<tr>
<td>Stn vs SW student b</td>
<td>1.61</td>
<td>0.19</td>
</tr>
<tr>
<td>Stn vs Midwife (post) c</td>
<td>2.81</td>
<td>0.14</td>
</tr>
<tr>
<td>Stn vs DclnPsy d</td>
<td>3.31</td>
<td>0.29</td>
</tr>
</tbody>
</table>

a Dummy variable comparing A-level or NVQ qualification (at entry to training) to degree.
b Dummy variable comparing student nurse to social work student.
c Dummy variable comparing student nurse to post-registration midwifery student.
d Dummy variable comparing student nurse to clinical psychology trainee.
The model information presented in Table 16 indicates that there are differences between the attitude scores of participants based on predictor variables of student groups, level of entry qualification, own use of illicit drugs and knowledge that family or friends have used illicit drugs. The standardised beta values, which all represent units of standard deviation in order to assist comparisons between predictor variables using different units of measurement (Brace et al., 2009), indicate that the difference between a student nurse and clinical psychology trainee is the strongest influence on the dependant variable, followed by drug use by family and friends, then personal drug use by the student and the difference between a social work and nursing student. The final two predictor variables, which represent the difference between a student nurse and post-registration midwifery student and those students entering their respective courses with a degree as opposed to A level qualifications indicate a lesser influence on the attitude score.

The dummy variables constructed for each of the comparison groups suggested that there would be a predicted increase of 1.61 in the attitude score, if a participant were a social work student as opposed to a student nurse (the reference category), as long as other variables remained constant. The predicted increase between a clinical psychology trainee and a student nurse would be 3.31 (again if all other variables remained constant). The regression model suggested an increase of 2.81 in the attitude score between the reference category (student nurse) and post-registration midwifery student, with all other variables remaining constant.

The variables related to the student’s experience of illicit drug use and their knowledge of illicit drug use amongst family or friends were also retained in the final model. The independent variable ‘ever used’
suggested that being placed in the category ‘no’ as opposed to the reference category ‘yes’ would indicate a reduction in attitude score by 1.13. This suggests that respondents who indicated that they had used illicit drugs were more likely to score a higher attitude score than respondents who indicated that they had not (when all other variables remained constant). For the independent variable linked to illicit drug use by family or friends the category ‘yes’ was set as the reference category, therefore a response of ‘no’ would predict a reduction in attitude score by 1.29 (when all other variables remained constant). This suggests that participants who indicated that they were aware of family or friends who had used illicit drugs were more likely to fall higher on the attitude scale. Thus the results of the regression model indicate that respondents who had personal experience of illicit drug use and those who had family or friends who had used illicit drugs were more likely to gain a higher score on the attitude scale at the start of their training. None of the dummy variables created from the students’ perception of the commonality of illegal drug use in the area or environment in which they grew up were retained in the final regression model.

The final variable retained was one of a set of dummy variables created in order to allow the use of the student’s entry-level qualification in the regression analysis. This suggested a difference when moving between students entering training with ‘A level’ qualifications (the reference category) and students with a degree. This difference consisted of a fall in the attitude score of 1.28 when moving from ‘A level’ to ‘degree’, whilst other variables remained constant.
Diagnostic tests

In order to gain confidence in the results of a regression model it is important to consider how the variables in the model relate to each other and the linearity of this relationship (Muijs, 2011). One important consideration is the possibility of collinearity, where two (or more) of the independent variables are correlated to each other as well as the dependant variable (Miles & Shevlin, 2001). This can cause a problem in the model because if the predictor variables are too strongly correlated it becomes difficult to calculate their individual contribution in the model (Muijs, 2011).

Field (2009) noted that an initial way of checking for collinearity is to inspect the correlation matrix, for high correlations (above .80 or .90) between any independent variables. The highest value between two independent variables indicated on the correlation matrix (see Appendix J) was 0.45, between the dummy variable comparing student nurses and clinical psychology trainees and the dummy variable comparing A-level or NVQ qualification (at entry to training) to degree. This is a reasonable correlation to expect, as all of the clinical psychology trainees would have at least a degree prior to entering training, but this value did not indicate a serious problem. However, as Miles and Shevlin (2001, p.129) warn “it is the multiple correlations that matter, not the bivariate correlations”. Diagnostic statistics for collinearity are also supplied in SPSS in the form of tolerance values and the closely related ‘Variance Inflation Factor’ [VIF]. Whilst there are no clear rules relating the acceptable values, Miles and Shevlin (2001) noted that tolerance values close to 1 and VIF figures less than 2 are acceptable. The lowest tolerance value (0.8) and the highest VIF figure (1.3) were both in the acceptable range in the current study, indicating no serious problems with collinearity.
In addition to collinearity, it is important to consider cases, which may unduly influence the regression model. Influential cases are those identified as having a standardised residual value less than -3.3 or above 3.3 (Pallant, 2010). The default setting for detecting these cases in SPSS is 3.0 and in the current study only one case obtained a value of 3.04. Pallant (2010) points out that it is not uncommon to obtain residuals, with up to 1% of cases being identified as outside the -3.0 to 3.0 range in a normally distributed sample. However, in order to confirm that this residual did not overly influence the final regression model, Cook’s Distance was considered. The maximum value for Cook’s Distance of .050 was considerably below the figure of 1 indicated as a problem (Pallant, 2010).

A further consideration relates to the distribution of the residuals in a regression model. This may be considered by inspecting the normal probability plot (P-P) and histogram of the standardised residuals, which can be requested as part of the SPSS diagnostic output. The P-P plot and histogram for the final regression model in the current study are presented in Appendix J, indicating a normal distribution of residuals. The scatterplot of the standardised residuals is also presented in Appendix J, which indicates homoscedasticity, where “the variance of the residuals at every set of values for the independent variable is equal” (Miles & Shevlin, 2001, p.85). Hence the diagnostic tests, indicated no potential problems with residuals in the final regression model.

**Summary**

In summary, data pertaining to each of the research questions were analysed using an approach that was deemed appropriate to the nature of the data collected and the type of research question set. Results indicated that student nurses who had used illicit drugs and
had family or friends who had used illicit drugs tended to score higher on the attitude scale, indicating more positive attitudes towards illicit drug use. Links between the commonality of illicit drugs in the environment in which the student grew up and their attitudes towards illicit drugs were however, rather more uncertain, with data collected for this variable failing to indicate a clear influence on the student nurses’ attitude scores. In addition, data linked to age, religious affiliation, level of entry qualification or hours in education focused on illicit drug use also failed to demonstrate a sizable effect on the student nurses’ attitude scores. Thus for the student nurses in the current study, personal experience of illicit drug use and illicit drug use by family or friends appeared to be associated with more positive attitudes towards illicit drug use.

Differences were identified between the attitudes of student nurses and students in the comparison groups. Student nurses gained the lowest mean attitude score, indicating more negative attitudes towards illicit drugs and clinical psychology trainees gained the highest mean score, indicating the most positive attitudes towards illicit drug use amongst the groups sampled.

The students’ attitude scores at the start of their respective courses were then compared with those gained at the end of their first year. Analysis of the sub-sample of student nurses did not find a substantial level of change in the scores collected at the start and end of their first year of training. This finding was repeated for all the comparison groups in the study.

The following chapter will discuss the findings from analysing the qualitative data generated in the current study.
Chapter 7: Qualitative results

This chapter reports findings from the thematic analysis of the qualitative data set generated in the current study. This data set comprised of a combination of data obtained from sections of the study questionnaire and a series of semi-structured interviews. Space was provided in the questionnaire for students to write additional comments linked to the broad headings of ‘experiences of illicit drug use’, ‘work experiences’ and ‘education around illicit drugs’ (see Appendix A). These comments varied in length, depth and focus, with some students adding detailed explanations, whilst others briefly expanded upon their tick box answers. The bulk of the qualitative data set was, however, generated from a series of 25 semi-structured interviews, conducted with volunteers who completed the questionnaire. The purpose of including qualitative data was to gain more detailed, case level insights into the influences on the students’ attitudes towards illicit drug use, adding depth to the group level insights gained from the quantitative data.

As noted in the literature review for the current study (see Chapter 2 pp.6-44), illicit drug use has a long and complicated history in the UK, with the agendas of politicians, medics, the media and other powerful groups in society influencing Government policy and public opinion. The concept of an ‘attitude’ is also rather difficult to define and measure, comprising of both affective and cognitive appraisals of the person, object or topic of interest (Aronson et al., 2010). Gaining a deeper understanding of how the attitudes of participants may have arisen, from the range of the factors measured in the current study, required the detail provided by the qualitative data. Exploring the factors (or variables) measured and analysed in the quantitative element of the study in more depth, developing them into ‘themes’,

206
allowed both cognitive and affective influences on the participants’ attitudes to be considered.

In order to illustrate the dimensions and properties of the data coded within each theme, excerpts from the interviews and questionnaires are included in the following discussion. Excerpts from the interviews were chosen on the basis that they highlighted a specific point, represented a group of views of were particularly clear or eloquent (Gibson & Brown, 2009).

Where excerpts are used, the author’s comments are reproduced in standard text and comments from the interviewees are in bold text. Each interviewee is identified in the text using their interview number and course of study, and some further background details are provided in Table 17.

The following sections of this chapter are structured around the themes, which developed from the range of factors measured in the current study. The emphasis was on how these themes added to an overall understanding of the answers to the research questions set for the current study. The chapter initially reports findings associated with the influences on the attitudes of the students, towards illicit drug use, at the start of their training (research question 1 and 2). Research question 1 specifically focused on the student nurses, whereas research question 2 required comparisons between the student nurses and other groups of students involved in the current study. Comparisons between individual cases and the sub-groups of students contributing to the qualitative data set were made whilst reporting the findings within each theme.
It is important to note that whilst the focus of research questions 1 and 2 was on the factors influencing the attitudes of the students at the start of their training, all of the interviews were conducted at the end of the students’ first year on their respective courses. However, this was militated by the fact that interviewees were asked to reflect on factors which occurred prior to their course, such as early
childhood experiences and their history of illicit drug use (see Appendix B).

Research question 3 required consideration of whether the student nurses’ attitudes had changed over the course of their first year of training and if such change had occurred within the comparison groups. Interviewees were asked to reflect on their first year of training, considering whether they felt their attitudes had changed. Interviewees were also asked to describe experiences in practice placements and the educational input they had received linked to illicit drug use.

Illicit drug using behaviour

Research sub-question 1.1 required a specific focus on the personal use of illicit drugs by the participants in the current study. However, interviewees were not specifically asked about their use of illicit drugs for ethical reasons. This was a specific stipulation made by one of the HEIs where student nurses were recruited, in order to allow the researcher to gain access a suitable sample of student nurses for the interviews. Although participants were asked about illicit drug use in the anonymous questionnaire, the questionnaires were analysed after the semi-structured interviews took place, hence the researcher was not aware of any disclosure of illicit drug use prior to the interviews.

As noted in the literature review (see Chapter 2, pp.6-10 and Chapter 3, pp.45-57), existing theories associated with attitude formation and change, identify a link between an individual’s attitudes and their behaviour.Whilst this link is by no means straightforward, it was deemed sufficiently important to consider personal experiences of illicit drug use in the current study. Table 17 (see p.208) provides
information pertaining to whether the interviewees had self-reported illicit drug use in their questionnaire. This indicates that over half of the students interviewed (60%, n = 15) had used at least one illicit drug at some point in their lives, which was marginally higher than the figure for all of the participants in the current study (53%, n = 163).

In order to open up the discussion in the semi-structured interviews and focus the interviewees' attention on the topic of interest, all interviewees were asked to “imagine a scale from 1 to 10, with 1 being very much against illicit drug use and 10 being in favour of individuals being able to choose if they would like to use a particular drug”. Each interviewee was then asked to place themselves on this scale and reflect on the factors that they felt had influenced their views.

In answering this question, five student nurses (interviewees 14, 17, 18, 19 and 23), one health and social care student (interviewee 2) and one social work student (interviewee 5), mentioned their illicit drug use. These disclosures are supported by the answers given by these students in their questionnaires (see Table 17, p.208). However, of the student nurses who mentioned their use of illicit drugs all but one discussed drug use in the past tense. They appeared keen to suggest, without necessarily overtly stating, that illicit drug use was an activity they had experimented with at an earlier point in their life. Typical of this approach to disclosure, Interviewee 23 (student nurse) stated:

   Obviously I tried it, LSD, stuff like that... Mmm... so I think it was 6 weeks holidays, I admit I was a kind of a
tearaway really, you know, I kind of went with the trend that was happening at the time.

Interviewee 23’s approach to explaining their experience of illicit drug use, in terms of fitting in with their peers, was also expressed by two other interviewees (interviewees 14 and 19). Adolescent experimentation influenced by peer pressure is a common explanation for illicit drug use in many existing literature sources (Hunt et al., 2010). The advantage of adopting such a stance is that it allows individuals to distance themselves from any active choices they may have made at the time. This proves particularly convenient when a history of illicit drug use is incongruent with an individual’s persona at a later point. Politicians, for example, are often placed in a position where they feel they have to explain why they used illicit drugs during early adulthood despite supporting increased legislation against illicit drug use when in positions of power. In a similar way, a history of illicit drug use may feel less acceptable as a student moves towards entry into a profession such as nursing, potentially adding to the impetus to absolve some responsibility for such behaviour, particularly when talking to a nurse lecturer (the researcher in the current study).

Whilst the majority of the student nurses talked about past experiences of illicit drug use, one student nurse (Interviewee 18) disclosed their current use of cannabis.

I’d probably say I was about 15, when I was first, erm, I smoked cannabis, erm, but it was never an addiction... No, no... just the odd occasional... yeah... but it did get quite regular, you know... have a couple of drinks and have a spliff as well... Mmm... but it’s kind of carried on as well, up
to now... Mmm... but it’s nothing... yeah, yeah, nothing, erm... I’m not addicted, if I didn’t want it... I could choose not to have it at any point, you know... (interview 18, student nurse)

In addition to emphasising their choice to use cannabis, Interviewee 18 also went to some lengths to suggest that their level of engagement in cannabis use was minimal. This is understandable given the fact that cannabis use is illegal and such use may not be seen as appropriate in an entrant to the nursing profession. Many studies (notably Parker et al., 1998), have suggested that young adults, such as this 20 year-old student nurse, simply see cannabis use as a normal recreational activity. This did not appear to be the case for interviewee 18 who appeared to feel the need to downplay their use of the drug.

Interviewee 18 was also very keen to point out that their use of cannabis should not be seen as an ‘addiction’. Whilst the meaning of the term ‘addiction’ was not explored in the interview, the implication was that their regular use of cannabis remained voluntary and controllable, with the suggestion that this may not be the case for other users. Several interviewees, who disclosed illicit drug use (4 out of 7 interviewees), also compared the level of their drug use to other drug users. They recounted examples of people they considered to be less controlled in using their illicit drug of choice. Emphasising the point that their own use of an illicit drug had remained under control, when that of peers, friends, family or in one case a celebrity had not, seemed to be part of a normative process. This process appeared to have some significance to the interviewees, sanctioning the level of their engagement with illicit drug use. Interviewee 17, again referring to cannabis use, commented:
I never became addicted or used it very often for myself, although, the boyfriend at the time did like take it more often than I thought acceptable in my view (interview 17, student nurse)

Subjective evaluations about ‘acceptable’ levels of drug use were not supported by any objective evidence linked to the side effects of a drug or references to the consequences of ‘unacceptable’ levels of use. Comments simply revolved around the point that the person in the example was more ‘out of it’ or ‘wasted’ than the interviewee felt acceptable. This does appear to be a rather paradoxical measure since such effects could be seen as the principal rationale for using an illicit drug. These comments highlight the possibility that illicit drug users may be viewed negatively, based on a very subjective opinion of whether their level of use was unacceptable.

One of the consistent criteria for judging someone else’s level of illicit drug use appeared to revolve around a rather arbitrary evaluation of whether they could be seen as an ‘addict’. Comments about not being ‘addicted’ and the ability to refrain from drug use if they so wished, appeared to reassure the interviewee that they were better at managing the risks of using an illicit drug than other illicit drug users. Thus the impression gained from the student nurses, was that they might still be inclined to be judgemental toward illicit drug users if their use was considered excessive, particularly if they were perceived as an ‘addict’. The perception that an individual might be ‘out of control’ in their drug use appeared to be unacceptable to these students.
As previously noted it was possible to identify the individual interviewee’s summative attitude score during the process of data analysis (see Table 17, p.208). Whilst this measure is more suitable to compare trends and patterns at a group level, it does provide some indication of differences between individual students. Considering the summative attitude scores for this extremely small group of student nurses who admitted their use of illicit drugs in the interviews \((n = 5)\), indicates that there was no consistency in their scores. Interviewees 17, 18, and 19 attained scores above their group mean \((M = 2.74)\) and interviewees 14 and 23 scoring below (see Table 17, p.208). This group of students’ summative attitude scores ranged from 1 to 8, indicating a diverse range of responses to the Likert questions in the questionnaire. Such a wide diversity reinforces the view that individual students had interpreted their personal experiences of illicit drug use differently. This suggests that simply having tried an illicit drug at some point in the past does not necessarily lead to improvements in future attitudes towards illicit drug users. What appears to be more important is how the individual later perceives their experiences of illicit drug use. Interviewee 23, who gained the lowest summative attitude score \((1)\) for the group of student nurses who had tried an illicit drug, can be seen as an example of this point. The way they talked about their earlier experiences indicated that they had distanced themselves from their decision to use illicit drugs, focusing on peer-pressure at the time of the event in order to absolve responsibility for their use. Such a focus removes a degree of blame from the individual, placing it on those who are perceived as pressurising the individual to use (Shiner & Newburn, 2007). As discussed in the literature review (see Chapter 2, pp.25-27), divisions between those perceived as the innocent victims of drug misuse (such as in the case of Leah Betts) and those demonised as a threat to traditional institutions within society (such as drug dealers or pushers) have become a marked feature of media
discourse (Manning, 2007a). Hence it is perhaps understandable why explanations such as passively going along “with the trend that was happening at the time” (Interviewee 23) might prove to be an appealing way of portraying early experiences of illicit drug use. However, adopting such a position to explain one’s own illicit drug use, creates a ‘villain’ even if this simply applies to members of a peer group who were involved in the early experimentation.

Hierarchy of illicit drugs

The interviewees who acknowledged using illicit drugs in the interviews (2, 5, 14, 17, 18, 19 and 23), expressed their views about a range of different illicit drugs, some of which they had tried. Several of these interviewees (4 out of 7) reported experimenting with more than one illicit drug, but all of these students emphasised that they employed a rational decision making process before deciding whether to try a particular illicit drug or not. In this decision making process all of the interviewees acknowledged the idea that there was a hierarchy of acceptability with the recreational use of drugs such as cannabis and ecstasy seen as more ‘acceptable’ than the use of drugs such as heroin and cocaine. The basis for this hierarchy varied from interviewee to interviewee, but only one student nurse supported a judgement about a specific drug by recounting a personal experience:

I had some coke [cocaine] a while back, perhaps a couple of years ago, and it was the worst experience of my life, and I, since then I said I’d never touch anything like that again, so I’m not doing… (interview 18, student nurse)

Whilst this negative experience appeared to influence Interviewee 18’s choice not to use cocaine, it appeared to have no influence on
their use of other illicit drugs, supported by the fact that they still used cannabis at the time of their interview.

The interviewees recounted a range of reasons influencing their decision to use or avoid a particular illicit drug. These reasons varied from broad discussions relating to their perceptions of the impact of certain drugs (particularly heroin) on society as a whole (3 out of 7 interviewees), and representations of certain drugs in the media (2 out of 7 interviewees), to very specific case studies describing the effect of problematic use of a particular drug on family members or friends (3 out of 7 interviewees). Interviewee 18, for example, stated:

**I went out with one of my mates one night and he took erm, some ketamine, and he was, he was like out of it, the way I saw my mate that night, that was horrible. Is it not something you’d want to ever…No!** (interview 18, student nurse)

Whilst students recounted a range of factors influencing their choice to use a particular illicit drug and the circumstances in which they would use it, the particular drug’s legal status failed to feature. None of the student nurses or students in the comparison groups discussed differences in how drugs were classified under the Misuse of Drugs Act (HO, 1971) as a significant influence on their decision to use a particular drug. It appeared that increased fines and/or prison sentences for the use of illicit drugs with a higher classification had not significantly influenced interviewees in the current study.
There was a clear hierarchy of acceptability around the use of different illicit drugs. Interviewees placed cannabis and ecstasy at the ‘acceptable’ end of the spectrum and other drugs, most notably heroin, at the ‘unacceptable’ end of the spectrum. Such views appeared to be shared with other students who made comments on the study questionnaire.

**Cannabis seems OK to be used for pleasure. I know in the college I attended the majority of students seemed to take this regularly** (Questionnaire comment, student nurse)

**Tried it [ecstasy] occasionally during the ages 18-21, peer group all did it. Believed that certain drugs were safe especially if you follow ‘rules’ e.g. sip water every 15 mins.** (Questionnaire comment, clinical psychology trainee)

Illicit drugs perceived as enhancing the enjoyment of a social or recreational activity (such as cannabis and ecstasy), were considered more favourably. Any mention of heroin use, in particular, evoked stereotypical images of crime, inner city deprivation and the social isolation of heroin users. These images closely mirror how the drug and its users are often portrayed in the media and the moralising perspective evident in popular discourse (Ettorre, 2007; Shiner, 2009). Differences in how specific illicit drugs were perceived indicated that even those interviewees who had used an illicit drug, were more likely to hold negative, stereotypical attitudes towards the use of certain drugs, most notably heroin.
Reasons for changing drug-using behaviour

One interesting area for consideration, which arose from the interviews, was the point that two student nurses specifically discussed their reason for stopping their use of illicit drugs. Many of the models focusing on attitudes and behaviour (such as the TPB) have a primary interest in predicting behaviour change (Ogden, 1996). The two student nurses (interviews 17 and 23), who specifically discussed the reasons for their change in behaviour, indicated that their decision to stop using was based on factors such as changes in personal circumstances or responsibilities.

I went to college, I think the end of the year, I kind of took a step back, and I can’t remember what happened, but I remember one day I went out with the friends that I hung around with from school, and I didn’t have anything that night... I just thought to myself, ‘what am I doing?’.
(interview 23, student nurse)

Within the comparison groups, the health and social care student (Interviewee 2) mentioned a disapproving discussion with their parents as a catalyst in the decision to refrain from future use of illicit drugs, when their recreational use was perceived as becoming problematic.

There has been some bad situations before... Hmm. but obviously, yeah, they kind of... just... I don’t know, well, just kind of supported me through it really... Right. and they knew that I know it was wrong, and... Right. I changed things after that. OK. But, erm... So they were kind
of, erm, you were able to talk to them and discuss issues and things like that? Yeah. Yeah? After all the shouting... Yeah? and, yeah, no it wasn’t even shouting, there was like this whole disappointment thing “I’m so disappointed”, but, erm, they only ever did that when I’d like really really taken it too far... (interview 2, health and social care student)

These excerpts suggest that cognitive appraisals of the harm associated with drug use were not the main factor in the interviewees’ decision to stop using illicit drugs. Both interviewees indicated that the realisation that illicit drug use had become problematic to interpersonal relationships and lifestyle choices were the significant issues in their decision to stop using illicit drugs, rather than any pharmacological effect of the drug.

**Personal background**

Research sub-questions 1.2 and 1.3 focused on the illicit drug use by family and friends and the commonality of illicit drug use in the environment in which the student grew up. In order to add to the limited insights gained from the fixed responses available for question 17 (‘do you know of any friends or family members who use illicit drugs?’) and question 18 (‘was illegal drug use common in the area/environment in which you grew up?’) in the study questionnaire (see Appendix A), each interviewee’s background was explored in more detail in the interviews. Interviewees were initially asked to describe the area where they grew up, they were then asked about their contact with illicit drug use in close social circles and finally they were asked whether they felt this contact had influenced their attitudes towards illicit drug use.
This broad line of questioning resulted in some interviewees simply describing the geographical location in which they grew up, whereas other students were more reflective, expanding their description to include issues such as inner city deprivation and social cohesion. One health and social care student, who scored highly on the summative attitude scale (7), indicating more positive attitudes toward illicit drug use, was quick to raise the influence of their perceived liberal upbringing on their views towards illicit drug use.

Can you tell me a bit about the kind of area that you grew up in? What was it like? Erm, it was quite middle class, probably predominantly white. Mmmm. Erm, both my parents have been to University... and... so... my Dad particularly was always kind of... for me making my own decision but giving me the information, and although he knows that I've done some things... erm... I don't think he’s held it against me. Hmmm. Partly, probably even slightly encouraged it as well. Right OK. Erm, I think just cos he knew that these kind of things were going to happen, and he’d rather I could just tell him... Right. and he’s been quite open about, sort of things that he’s done in his past. Right, OK And that’s quite interesting to hear (interview 2, health and social care student)

Whilst Interviewee 2 does not specifically refer to illicit drug use or a specific drug in the above quote, the context of the discussion clearly indicated that this was the case. This openness and ability to discuss illicit drug use with their parents, was in contrast with a social work student, who gained the lowest score of all interviewees on the summative attitude scale (-5), indicating non-accepting views on illicit drug use.
I suppose my childhood was, you know, what you would call a deprived area, I suppose, socially, economically, erm, my parents were not that well off, and everybody I knew was not that well off, erm, so that’s kind of, and there was, but you know I didn’t, when I grew up, I didn’t see any drug taking... Mmmm. I didn’t hear a lot about, or very little if anything, about people taking drugs, so all my views were really, came from my elders... Mmmm. erm, my peers and from the media mostly... Right. and, so, and my peers and my elders were all against it, very strongly against it... Mmm. so I became against it as well (interview 9, social work student)

Whilst these examples demonstrate the extreme ends of the spectrum, accounts given by the students appeared to confirm the influence of upbringing on subsequent attitudes to illicit drugs.

An interesting point to note is that Interviewee 2 disclosed illicit drug use in their interview, which was confirmed in the anonymous questionnaire (see Table 17, p.208), whereas Interviewee 9 did not indicate any history of using an illicit drug. This does tend to confirm the likelihood that factors, such as personal use of illicit drugs and background are likely to be interrelated, which was the rationale for conducting multiple regression analysis in the quantitative section of the current study. However, one student nurse was very clear in pointing out their ability to make the active choice to not use illicit drugs despite growing up in an environment where illicit drug use was common.
[I] grew up on a council estate where drugs are very easy to access. Lots of my friends did drugs! WHY DIDN’T I ???? [emphasis in the original] (Questionnaire comment, student nurse)

Whilst no other students expressed a similar degree of freedom in their ability to refrain from illicit drug use, this quote highlights the point that an individual’s actions are not necessarily solely dictated by environmental factors.

Illicit drug use by family and friends

The views of parents and other influential individuals in the students’ lives were often recounted as significant mediators in forming views on illicit drugs. All of the interviewees, with the exception of three student nurses (interviewees 19, 20 & 21), indicated that they were aware of family members or friends who had used illicit drugs. However, despite indicating their lack of awareness of current use amongst family and friends, interviewee 20 commented about their partner’s past use stating:

He used to do a lot of stuff, I know that, but I don’t know what, ‘cos I think its best not to know... Mmm. It is his past, and he has changed, so... Yeah, yeah, so it’s done with, dealt with, yeah? As long as he doesn’t do it now, that’s fine. OK. Would you have a word with him if he did? He wouldn’t, he wouldn’t be allowed to have his little girl if he did, cos I, it’s, I don’t want to involve myself in anything like that... (interview 20, student nurse)
This is a very strong affective response against illicit drug use, which was supported by the student gaining a low score on the summative attitude scale (-1). Interviewee 20 went on to support this judgement stating that:

**Drugs to me are just, they’re not normal, they’re not, they’re not legal, if they were legal, it might be a difference to me, but they’re not, they’re obviously not good for you...** (interview 20, student nurse)

Interviewee 20 suggests that since a drug is illegal it must be harmful to the individual’s health and goes on to make a clear distinction with the use of a medically prescribed drugs which are viewed as beneficial to health.

**To me it’s a drug and it’s not a medical drug, it’s a drug drug that people go out and use illegally... Yeah? but in hospitals I think like oramorph and things, and diamorphine I think, if they’re controlled drugs, and they’re in that setting, I think that’s, that’s fine.** (interview 20, student nurse)

Such comments suggest a rather dichotomised view, based on a medical model perspective, where substances are viewed in a positive light when medical professionals control their use to treat a diagnosed illness, but negatively when individuals choose to use substances through their own volition (even for the purpose of self-medication).
The two remaining student nurses (19 and 21), who indicated that they were not aware of family and friends who used illicit drugs, did not express any judgemental attitudes towards illicit drug use, which is supported by their summative attitude scores (both achieving +5). Interviewee 21, whilst indicating that they were not aware of family and friends who used illicit drugs, acknowledged that they were readily available within their wider circle of acquaintances.

I got offered something to this day I don’t know what it was, but I just quickly passed it on, at a big bikers do, it was like er, I think it might have been speed or something, I don’t know... Mmmm. Erm, erm, is it whizz? Yeah. Whizz was a big one as well... Yeah. When I was sort of going through the music scene. (interview 21, student nurse)

The experiences of the interviewees who indicated that they did have knowledge of family or friends using illicit drugs did vary, with one student nurse describing a relative’s medicinal use of cannabis in positive terms.

My uncle passed away and he used, he smoked cannabis when he was, when he was, before he was really poorly... Hmm. and it relaxed him. Yeah. But, he was open to the GP and whatnot about it as well, but. Yeah. He died in the end, but... Right, OK. That, was that linked to his drug use? No, no, he’d got cancer. (interview 14, student nurse)

However, other students recounted far less positive experiences from within their close acquaintances or family.
Older sibling used heroin from the age 17 (approx) this had a massive effect on family life. Sibling couldn’t get better until he wanted to... (Questionnaire comment, social work student)

My cousin used drugs, and it completely wrecked my aunt’s and uncle’s marriage and, yeah, tore the family apart. Hmmm. And even to this day, you know, there was a great strain on the family... Yeah. due to that. OK. So I suppose that’s probably had quite a... Right. biased view. Yes, so that’s kind of biased your view against it in a way? Yeah. (interview 25, post-registration midwifery student)

Whilst students commented on a range of illicit drugs in connection with their use by family and friends, cannabis was the most frequently mentioned drug. Other commonly used illicit drugs such as cocaine, amphetamine and ecstasy (Hoare & Moon, 2010) were mentioned by some (4 out of 25) interviewees, but only one interviewee (interview 3, social work student) specifically recounted a direct experience relating to heroin use by a close family member.

I walked into a flat once and one of my brothers was just having some [heroin] and I kinda, I lost it, I flipped, and that was it, that’s, that’s the closest I’ve come to that, I just... Hmmm. couldn’t handle it at all, I couldn’t let him do it and it caused lots of trouble but, you know... (interview 3, social work student)

Examples of the impact of illicit drug use on acquaintances and family members were regularly mentioned by the interviewees and were
often used to justify their view on a particular drug or illicit drug use in general. Negative examples were frequently cited (12 out of 25 interviewees) in support of negative views and conversely positive examples were used in support of more positive perspectives (9 out of 25 interviewees). Perhaps unsurprisingly, interviewees appeared to select and recount examples, which were congruent with their own perspectives on a particular drug or illicit drug use in general.

Environment

Discussions about the environments in which the student grew up tended to be interlinked with discussions around drug use amongst social contacts. Students described a wide range of experiences relating to illicit drug use within the environments in which they grew up, with some describing growing up in small rural communities and others describing large inner city areas. Descriptions of these geographical locations varied, although many of the student nurses interviewed described local communities that were in relatively close proximity to the university where they were studying. However, this was not the case for the clinical psychology trainees, who both suggested growing up in other areas of the UK and interviewees 11 (health & social care) and 9 (social work) who reported growing up abroad. The descriptions given by the interviewees suggested differing levels of affluence and social problems within these areas.

Not many people have jobs and, or they’re low paid jobs... my Dad’s a xxxx [member of a motorcycle gang] so he’s always very much... Right, OK. It’s that sort, that sort of area erm..., so most people are drug or alcohol abusers or they’ve moved away (interview 14, student nurse)
My erm, street is quite a, it’s a little avenue and the house that I lived in, I was quite privileged to have quite a large house with its own quite expensive garden, and so I didn’t drift out into any area, I was kind of in my own little bubble (interview 15, student nurse)

Responses in the questionnaires indicated a relatively even division between students who reported illicit drug use as being common in the areas in which they grew up (13 interviewees) and those who reported that it was not (12 interviewees). All of the interviewees, with the exception of one student, stated that they were aware of the prevalence of illicit drug use in the area where they grew up, indicated by a ‘yes’ or ‘no’ response to question 8 in the questionnaire (see Appendix A). Interviewee 13 explained their lack of awareness by suggesting that they were not really integrated into the local community where they grew up.

I think we kind of stepped away from... we’re not really hugely integrated into the place that we lived. We still live there now – erm, having to move back now. So, yeah, I don’t really... yeah, it’s hard ‘cos I don’t associate myself with that place. (interview 13, clinical psychology trainee)

The interviewees who indicated their knowledge of the commonality of illicit drug use in the locality in which they grew up (n = 13) appeared to attach some significance to these experiences. Interviewees often discussed the link between crime and illicit drug use within their local community.
I live in xxxx [inner city suburb] and people think xxxx’s a posh area… Yeah, yeah but it’s not… Mmmm and it’s the crime, it’s the impact that person or persons causes on the rest of the public… Hmm to them the drug’s the most important thing, and that’s what the drug does to them… Hmm it changes somebody’s personality, it ruins their life… Hmm but then it impacts on the family, and then the family get drawn into it… Hmm but it also impacts in the neighbourhood, because the neighbourhood gets drawn into it because of the crime rates going up. (interview 16, student nurse)

All interviewees who mentioned problems associated with illicit drug use in the environment in which they grew up (11 interviewees), indicated that this experience had influenced their views. The severity of the perceived social issues prevalent in the environment appeared to be an issue, with interviewees who reported severe social issues which they associated with illicit drug use, suggesting that this had influenced them towards less accepting attitudes towards illicit drug use. This position is represented by a social work student who, when asked to indicate where they fell in terms of attitudes towards illicit drugs and what had influenced their views, stated:

I think probably in the middle of the road. Right, so around 5? Yeah, I think so, because... I know some drugs can be really really bad... but you know, I know a lot of people who do take cannabis and they seem happy on it and its their escapism, so... OK. Is there anything in particular that you feel has influenced that view? Where I grew up. Right. I grew up in a drug area... called xxxx Hmm. Which is... it’s a massive place for drugs. Right. Erm, so I grew up with
it... you know, I’ve seen it all my life. What’s, what’s xxxx like? Erm, it’s predominantly black. Hmm. It’s a massive drug area. It’s very run down, erm, the council just put all the riff-raff up there, you know, a lot of nice people there as well, don’t get me wrong. But they just put a lot of, erm... problem families up there, erm... So I kind of grew up around it, you know, you see them on the street corners dealing, you know, some streets have drugs, and some streets have prostitutes. (interview 3, social work student)

Such experiences sharply contrasted with a health and social care student (Interviewee 2) who gained a similarly high score on the summative attitude scale, indicating positive attitudes towards illicit drug use. When asked about the area that they grew up in and if drug use was part of that culture, Interviewee 2 commented:

erm, it was not part of kind of, of my friends that I knew just from the area that I was in, kind of the posh area, they were usually friends that, I was only friends with them because their parents were friends with my parents... Right. So I don’t think any of them would’ve kind of ever dreamed of taking drugs, but I kind of fell into a group of friends when I was about 17... I remember even just talking to my kind of my middle class friends and it was just... they definitely judged me for it and yeah, it was very different, my kind of middle class friends would never have done it, or if they did, they were very very secretive about it and never told their friends (interview 2, health and social care student)
This indicates the difficulties associated with simple links between attitude measures and factors such as illicit drug use in the environment in which the interviewees grew up. The wide range of experiences reported by the interviewees and the diversity in how individual interviewees interpreted, conceptualised and described their experiences became apparent in the interviews.

The impact of the environment in which the student grew up on their subsequent attitudes towards illicit drug use, did not appear to diminish with age. For example interviewee 3, a male social work student in their 40’s, graphically described the environment in which they grew up in some detail, indicating that the impact of illicit drugs on this environment was a significant memory. In describing this area, Interviewee 3 commented:

high-rise flats, there used to be three I think, four high-rises there. Hmmm. And then there was lots of walkways going in between the flats and escape routes... Hmmm. and the pubs were completely black at one time, erm... I started going to a pub down there about 1980, 81, 82, and I was one of the first white men to start going in the pub, there weren’t many whites going in there at all, seemed to be our year that started going in, us white people, so... Erm, what, what would you say were the main drugs being used in that area? Cannabis... for, for my age group it was cannabis, some of the old ones, the bikers and things, some of them was into like the pills and the coke, mixing 'em, so that was quite prominent, I suppose, but yeah, mainly cannabis, the street drug was cannabis, you know, in them days. So you’re talking about the early 80’s? Yeah, the very early 80’s. (interview 3, social work student)
Interviewee 3 regularly reinforced the idea that this experience was a significant factor in their attitudes towards illicit drug use. Whilst other students were not as overt in such assertions, the long-term influences of experiences in the students’ formative years appeared to be significant, with the majority of interviewees and many comments on questionnaires mentioning childhood or early adolescent experiences. One example, of mentioning early childhood experiences, can be seen in the comment of a 37 year-old student nurse.

*I was first introduced to drugs as a school child by a street dealer* (Questionnaire comment, student nurse)

This comment does stand out from the comments of other students who tended to discuss their early experimentation with illicit drugs in much more active terms. The students (such as Interviewee 23) who wished to distance themselves from an active choice in illicit drug use tended to discuss early experimentation in terms of peer pressure. The idea of a ‘street dealer’ enticing school children to use illicit drugs tends to extend this idea of innocence in early drug taking behaviour and has been a feature of media approaches to stories linked to illicit drugs for many years (see Chapter 2, pp.25-27).

The general indication from the qualitative data set was that participants felt that there was a link between the environment in which they grew up and their subsequent attitudes towards illicit drug use. The interviewees’ perceptions of the role played by illicit drugs in the general level of urban depravation within these environments were significant. Where illicit drug use was described as a common activity, but with few problematic consequences, it appeared that the
interviewees tended to view illicit drug use in a more accepting way, but where it was seen as contributing to problems such as crime within the locality, it was viewed in far more negative terms. These feelings tended to be linked to the specific drug discussed by the interviewee with heroin in particular being associated with problems in the environment. What became very apparent, when considering the qualitative data set, was that experiences gained from childhood to early adulthood were significant to the students’ expressed attitudes in adult life.

Religion

When asked to identify the factors which they felt had influenced their attitudes towards illicit drugs, three of the interviewees, one social work student (interview 9), a student nurse (interview 15) and a clinical psychology trainee (interview 13) discussed their religious beliefs. All of these interviewees indicated that they had never tried an illicit drug in the study questionnaire, however, apart from this similarity there were differences in how this small group considered illicit drug use. Interviewee 9 suggested that they would disapprove of illicit drug use on the ground of their religious beliefs.

Then there’s my religion as well, my religion says, you know, that these drugs that can erm, affect, can affect your mind, so that, so smoking is alright, because it doesn’t affect your mind. (interview 9, social work student)

Interviewee 9 focused on how the use of illicit drugs led to altered states of consciousness, which they interpreted as being against their religion’s doctrine. However, Interviewee 15, a student nurse, suggested that not only would their religious beliefs encourage a
tolerant attitude, they felt that their religious values would encourage them to work with illicit drug users.

I certainly disagree with certain things erm, being illegal, but no I, I’m not affronted to anyone else using around me... No, no because if they don’t believe in God then they’re not going to follow the rules that he set... Hmmm, yeah, yeah, that certainly came across from what you were saying Yeah. Yeah, OK, so there’s no kind of moralising if you like. No, no, erm, I come from quite a free easy going xxxx [particular religious sub-group], so... Yeah erm, I just, I try and follow, rather than our religion, a faith, so its just... Yeah. xxxx [name of a religious founder] was very easy going, he hung about with drunks and with prostitutes and whatever and erm, I think he’d expect me to hang out with those that actually need... Hmm. god rather than those that actually are quite sustained on their own...

(interview 15, student nurse)

Both interviewees 9 and 15 indicated that they shared the same religious affiliation. However their summative attitude scores were very different, with Interviewee 9 gaining the lowest score of all the interviewees (-5), which represented attitudes very much against illicit drug use, and Interviewee 15 gained one of the highest scores of all of the interviewees (+7), indicating positive attitudes on the subject.

Interviewee 13 reported a different religious affiliation to both interviewees 9 and 15, but gained a similarly high summative attitude score (+6) to Interviewee 15 (+7). Interviewee 13 suggested that
adhering to the doctrine of their religion would not specifically exclude the use of illicit drugs. Whilst Interviewee 13 confirmed that they had not personally used an illicit drug, they went as far as suggesting that they would welcome the opportunity to try illicit drugs, given the right circumstances.

If the opportunity arose I wouldn’t… say no. But I wouldn’t go to like, say, Amsterdam and try [laughs] a load of cakes there, you know. It’d be very much in like an, an enclosed environment with people I know and trust. So, erm, you know I, I think it’s completely… there’s no wrong in it really. Erm, I do believe it’s up to the individual. Right - yeah. So there’s that kind of spiritual element to it. Yeah. I mean… but not everyone who is, like I say, a xxxx [follower of a particular religion], believes that. Erm, some are really against it. Erm, but I… I think I’ve just been brought up quite like, you know... it’s, it’s really individual to you. Erm, your religion or whatever really, whatever you believe, you know... not necessarily religious, just everything... is, is... it’s your decision. It’s your life really. (interview 13, clinical psychology trainee)

All three interviewees felt that their religion was a significant factor in developing their attitudes towards the use of illicit drugs and their desire to work with illicit drug users. However, it was apparent in this small group of interviewees that simply following a religion did not necessarily influence their attitudes in a particular direction, or in the case of Interviewee 13, necessarily preclude their use of illicit drugs. The critical factor appeared to be how the individual interpreted the religious doctrine they followed and considered their role as a health and social care professional.
Knowledge around illicit drugs

Self-reported levels of knowledge around illicit drugs differed amongst the interviewees, with some interviewees ($n = 6$) reporting reasonable to good levels of knowledge, but most interviewees reporting limited levels of knowledge ($n = 19$). Where interviewees suggested that they had some knowledge of illicit drug use, they consistently suggested that much of this knowledge had come from contact with illicit drug use, either in their social networks or through personal use. Interviewee 18, a student nurse who had disclosed their own use of illicit drugs in the interview, was typical of those who reported reasonable levels of knowledge around the subject, and stated:

I’ve got a fair knowledge... Mmm. erm, but that’s more of, not a street knowledge, not a street knowledge, if you know, I wouldn’t know particularly where to buy it a lot of the stuff and... Mmm. how many’d cost or what you’d want or...Yeah. whatever, but I know the different types of drugs and some of the effects of it... So more what you’ve picked up over the...? More what I’ve picked up, yeah, and just learnt. (interview 18, student nurse)

Interviewees who reported reasonable or good levels of knowledge consistently indicated that this was related to certain drugs and not others. Given that this knowledge was attributed to personal experience or contact with individuals who used certain drugs, this was rather unsurprising.

So how much knowledge would you say you have about... About drugs? Yeah. Er, I’ve... probably, a fairly good
understanding, yeah, yeah, I mean like mostly toward, not, not the major stuff such as heroin or... Mmm. cocaine, or crack or, but mostly to do weed, ‘cos that’s the more common drug I’m around and associated with. (interview 10, health and social care student)

The most prominent alternative source of information cited by interviewees with limited levels of knowledge \((n = 6)\) was the media, television or films.

[I] can’t really pin down what it must have been maybe it was just seeing the odd advert on telly or... you know while I was growing up maybe. Mmm. Do any of those adverts kind of spring to mind? **Maybe not an advert but there was a girl that died, was it Leah Betts?** Mm-uh. Erm... and that was quite, I don’t know how old I was at the time but I was probably, you know, late teens or early 18 or something like that... erm... and so that kind of was a big deal for me, because they really played that, you know, and said, whether it was true or not, but said in the media that she just tried it once. So that was, I think, where my, try once and you’ll end up dying [view came from]. (interview 1, social work student)

Despite the media being reported as a prominent source of information, two of the participants in the semi-structured interviews, interviewee 10 (health and social care student) and interviewee 12 (clinical psychology trainee), were clear in pointing out that the media might misrepresent issues or present biased viewpoints. Only one student nurse (interview 16) reported that they had made some
attempts to seek a balanced view on illicit drugs by accessing more academic sources of evidence:

When I’ve been doing, looking for my research papers, there’s loads of articles on it that I’ve sort of skimmed through, and the youngsters don’t realise exactly how harmful that one [cannabis] is... (interview 16, student nurse)

Thus even the relatively small proportion of interviewees who reported reasonable to good levels of knowledge, tended to indicate that this was based on personal experience or the experiences of friends or acquaintances. Knowledge tended to be associated with a relatively small number of the most commonly used recreational drugs (often cannabis and ecstasy).

**Thematic Map**

After patterns and opposing accounts had been identified within the established themes, the next stage of analysis for research questions 1 and 2 was to consider how these themes were linked together or interrelated to each other. In a similar approach to diagrammatically representing links between significant categories generated from the coded data described by grounded theorists (such as Strauss & Corbin, 1998; Charmaz, 2006), Braun and Clarke (2006) suggested the use of ‘thematic maps’. Thematic maps can be used to visually identify links between important themes developed and refined during the phases of thematic analysis. This approach was used in the current study and a thematic map indicating the significant themes and their interrelationships, is presented in Figure 12.
The main themes are identified in blue and the sub-themes in yellow. Sub-themes are used to sub-divide a larger theme “giving structure to a particularly large and complex theme” (Braun & Clarke, 2006, p.92). In the current study, data coded under ‘family and friends’, relating to drug use within close social circles, and ‘environment’, relating to the locality in which the interviewee spent their childhood years, were identified as aspects of the same broader theme labelled ‘Personal background’. Whilst analysing the data it was often difficult to separate accounts of illicit drug use amongst peer groups and older family members from the students’ descriptions of the environments in which they grew up.

![Thematic map](image)

**Figure 12.** Thematic map.

The thematic map presented in Figure 12 provides a visual representation of how the themes explored in the qualitative data analysis appeared to be linked together. The map is presented with ‘views on illicit drug use’ as the central theme and this contains the
two positions of negative and positive views towards illicit drug use. Similarly the theme ‘own use’ was divided in order to indicate differences between the students who reported using illicit drugs and those who did not. In the data set, links were suggested between students who had used illicit drugs and positive views and a link between those who had not and more negative views, although (as noted above, p.209-215) this tended to be mediated by how the student interpreted these experiences at a later point in time.

The theme ‘personal background’ and its sub-themes ‘use by family or friends’ and ‘environment’, indicated a link to the central theme ‘views on illicit drug use’. However, the complexity of the interviewees’ experiences expressed within this theme and its sub-themes meant that it was difficult to discern any direct link between ‘personal background’ and ‘views on illicit drug use’. A broken line is used to indicate a tentative link between the negative side of ‘views on illicit drug use’ and ‘personal background’, as there were some links between students who recounted negative environmental experiences or problematic use by family or friends and more negative ‘views on illicit drug use’.

The theme ‘religion’, pertaining to the influence of religious affiliation and its link to the central theme ‘views’ is indicated by a broken line, due to the low number of interviewees who mentioned religion (n = 3) and the fact that two of the interviewees indicated that their religious affiliation influenced their view in a positive way and one interviewee in a negative direction. Braun and Clarke (2006) indicated that the researcher should consider removing or combining themes with such limited amounts of coded data, however, this theme does suggest an interesting perspective on religious affiliation and the links to views on illicit drug use (see above, pp.232-234).
The theme identified as ‘knowledge’, pertaining to the students’ sources and levels of knowledge of illicit drugs, was clearly linked to the students personal background and their own use of illicit drugs, with interviewees reporting personal experience as a foundation for their knowledge of specific drugs. The theme ‘knowledge’ was also linked to positive views on illicit drugs, which noted the tendency of interviewees with greater levels of knowledge about illicit drugs, viewing their use in more positive terms. However, as Spencer et al. (2003) noted, it is important not to attach direct causal implications to such links. Suggesting, for example, that knowledge of illicit drug use leads to a student holding better attitudes toward illicit drug use is beyond the potential of this data set and form of data analysis. It is equally plausible to suggest, for example, that positive attitudes towards illicit drug use might encourage a student to gain knowledge on the subject. Thus it is not possible to prove a ‘temporal sequence’, one of the requirements for claiming causality (Szafran, 2012). Whilst there were clear limitations on the inferences that can be drawn from the approaches used in the current study, thematic mapping provided a wider indication of how the themes explored in data analysis were interlinked and the relative importance of each theme in the data set.

The process of thematic mapping highlighted the importance of the theme entitled ‘knowledge’, which was linked to personal, social and environmental experiences relating to illicit drug use. The importance of knowledge around illicit drug use and its link to the students’ personal background and views is noteworthy in terms of the current study’s pragmatic emphasis on potential improvements to professional education.

**Changes in attitudes over the first year of training**

Research question 3 (and sub-question 3.1) focused on the possibility that the students’ attitudes had changed during their first year of
training. All of the semi-structured interviews were conducted towards the end of the students’ first year enabling the interviewees to reflect on their first year of training/education. The interviewees were specifically asked if they felt that their views had altered since starting their course. The consensus amongst all of the interviewees was that their views had not changed (23 out of 25 interviewees), although comments were made by two of the interviewees that perhaps more liberal views towards the use of illicit drugs were at odds with their training toward a professional qualification.

So thoughts about, sort of, entering a profession haven’t influenced your views in any way? It should, like as I’m talking now actually I think, you know what, as a trainee I should be a bit more responsible and I shouldn’t... er... I shouldn’t even think of trying. But then I know people who... who are like, you know, accountants or, or you know managers and they do it. And... they don’t do it regularly, but they do it with friends... and it... and it doesn’t... er it doesn’t seem to impact, like, upon their working life. Erm, and for some reason I think that, you know, if I’d had that experience then I could somehow... like even a percentage of understanding about drug use maybe with, with people who, who have been in like... in that kind of addiction. (interview 13, clinical psychology trainee)

This lack of change in attitudes expressed by Interviewee 13 is supported by the student’s summative attitude score, which remained stable at +6 between the start of training and the end of their first year.
In addition to feeling that views should change, one social work student used an example to illustrate how their entry into training had influenced how they would behave if they came into contact with illicit drug use in their private life.

Have your views actually changed since you started your training? Yeah Yeah? Yeah they have, yeah, whereas before, you know, I’d go to a party and if people were doing drugs I’d think, yeah, that’s up to them... now if I went in to a party and I see people doing drugs, I’d actually leave, I wouldn’t stay there now I don’t think, because I don’t want to jeopardise my career. (interview 3, social work student)

This indication of a change in behaviour did appear to be reflected in the student’s summative attitude score, which fell from +10 at the start of their training to +5 at the end of their first year. However, despite differences between the views of Interviewees 13 and 3, linked to their professional training, they both considered an empathic understanding of how illicit drug use affects the individual as an important asset in possible future professional roles. Even after the reduction in the summative attitude scores noted in Interviewee 3, both Interviewees 13 and 3 expressed relatively positive attitudes towards illicit drug use gaining summative attitude scores of +6 and +5 respectively, at the end of their first year of training.

Interviewees did not always express such empathy and levels of tolerance toward illicit drug use within their social networks. This was particularly apparent amongst those students who reported that they had never used an illicit drug (10 interviewees). Whilst some
interviewees \((n = 4)\), who had never used an illicit drug, did report levels of social acceptance of illicit drug use, others \((n = 6)\) expressed little or no tolerance to such activity. One student nurse was particularly vociferous in their condemnation of recreational drug use both inside and outside their course.

I just have to say there was a couple of girls on this course that was in to that head clapping [using a stimulant drug recently classified as a controlled substance], they’re not here any more I don’t, not for that reason but, erm, she used to talk about it and I just used to think ‘wow what an idiot’… Mmm that’s all I ever see in people, that’s probably why people don’t talk to me about much really, because I’m very like, I am very outspoken anyway… Right so they know never to come with me, I found my erm, boyfriend’s flatmate, he, well he’s homosexual as well, but he’s a drug user, so I don’t go into the house then if he’s there. (Interview 20, student nurse)

Distinctions between personally objecting to illicit drug use and an acceptance of patients/service users who used illicit drugs, were mentioned by several interviewees, particularly when qualifying more negative views around the use of illicit drugs. Interviewees often raised the point that they had a duty of care to patients/service users who used illicit drugs, regardless of their personal views on the subject. However, despite some limited signs of changes in the attitudes of the interviewees, based on perceptions of their evolving professional identities, diversity in the expressed views of the interviewees appeared to be firmly established prior to the students starting their current training course. Given that none of the courses involved in the current study had any focus on illicit drug use in the
curriculum, it is not possible to consider if such content might address the knowledge shortfall noted by interviewees and in questionnaire comments and improve the negative attitudes expressed by some interviewees.

Practice experiences

In addition to asking interviewees if they felt their attitudes had changed during their first year on the course, interviewees were also asked about their practice experiences. All of the groups of students, with the exception of the health and social care students, whose course did not contain a practice element, had completed at least one practice placement prior to the second set of data collection. Some students also mentioned previous practice experiences, linked to working in health and social care, prior to starting their current course. All of the interviewees who had been on placement, suggested that they had worked with illicit drug users in health or social care settings. The consensus amongst the interviewees was that they felt ill prepared for such contact. Typical of such feelings, Interviewee 24, a pre-registration midwifery student, commented on working with illicit drug users during training.

You mention about the practice setting, have you worked with erm, drug users in the practice setting then? **Yeah.** Would that be, did you say methadone and other types of...? **Yeah, for the most part methadone, or cocaine, or, or heroin and methadone...** Yeah. **So well, either smoking or injecting heroin...** Yeah which I felt completely unprepared to be honest didn’t get any real information or, you know, help on how to assimilate that into our practice. (interview 24, pre-registration midwifery student)
Whilst several student nurses mentioned challenges faced when caring for individuals in health care settings, noting issues such as differences in needs associated with pain relief and how this was difficult to accommodate, the majority of student nurses interviewed (n = 8) indicated that contact with illicit drug users was a positive learning experience. However, whilst pointing out that good standards of care were maintained, several of the student nurses interviewed commented that other staff expressed unfavourable attitudes towards individuals who were known to have a substance misuse problem.

I think initially, when you get your handover, so and so’s coming in, a previous drug abuser, or whatever, and they’ve gone “for god’s sake” or “bloody hell” (interview 19, student nurse)

They prejudged people, I saw that... Mmm. I did see erm, a name come up on a screen, and “oh we know him, we’ve had him before, I bet he’s in for the same thing”, or you know “he’s doing whatnot”, but the care didn’t change. Right, OK. The care wasn’t changed, it was just perception, people’s views... Yeah, yeah but it didn’t affect the care in any way... Right. which was the main thing really. (interview 18, student nurse)

The majority of the student nurses who entered comments on the questionnaire expressed similarly negative perceptions on the views of qualified nurses.
I think drug users are often considered less worthy within the healthcare setting and there is a general feeling that they have perhaps brought it on themselves. (Questionnaire comment, student nurse)

I worked on a placement where a couple had clearly been addicted to heroin. I felt the other nurses didn’t care as I heard personal comments passed. (Questionnaire comment, student nurse)

They are more ignored and get less care and attention. (Questionnaire comment, student nurse)

Question 20 of the questionnaire developed for the current study asked students to identify if they felt that illicit drug users were ‘thought of differently to other groups of patients’. Whilst question 20 simply asked the students if illicit drug users were thought of differently, purposefully avoiding giving the respondent a direction in the question, from comments added to the questionnaires and the interviews, it appears the students interpreted this question as being seen more negatively than non drug illicit drug users. Data from this question indicated that 55% (n = 65) of student nurses felt that they were thought of differently (see Chapter 6, pp.193-195). This negative view of the attitudes of existing practitioners was supported by a comment from a post-registration midwifery student. This comment is particularly significant because these student midwives need to be qualified nurses prior to entry into their midwifery programme.
I have witnessed some very poor attitudes at work. Have often felt that some nursing staff feel that drug users have brought problems on themselves and don’t deserve to be in hospital, taking a bed and treatment that someone else might use. (Questionnaire comment, post-registration midwifery student)

Whilst the overriding consensus amongst the student nurses was that negative attitudes towards illicit drug users were not uncommon in practice settings, three students expressed the view that they were not treated any differently. For example one student nurse commented:

**Treated them exactly the same as everyone else.**
(Questionnaire comment, student nurse)

It must be emphasised that ‘treating’ a patient is not the same as having a negative attitude about working with a particular group of patients. When asked if they thought patients who used illicit drugs received a different level of care to other patients, only 34% \((n = 40)\) of student nurses, who completed questionnaire, felt that they were treated differently.

Exceptionally one of the student nurses interviewed (Interviewee 19) indicated that they had some understanding of how negative attitudes might develop in qualified staff. However, it is important to note that their comments were made by way of explanation rather than suggesting full agreement with the perceived attitudes of other staff.
...well, even when they like, ‘cos they’ll have, you kind of know them but when they’ve got visitors coming in, and you can kind of look at them and they say... Mmm. you do get a bit on edge about, are they ever going to nick stuff out the staff room... Yeah? really you shouldn’t ‘cos they’ve come to visit, but then that thought’s in the back of your mind... Yeah, yeah. so I guess you prejudge the visitors as well... Yeah. and you’re very, very wary of them... (interview 19, student nurse)

Experiences gained in social care settings, as opposed to health care settings, tended to suggest that staff tended to be more understanding about the needs of illicit drug users seeking support.

How do you think the organisation that you worked in viewed illicit drugs users, illegal drugs users? They were very accepting. Right. ... it was in a hostel situation... Yeah. and it was if we find illegal drugs, then we have to inform the police. Apart from that we don’t care, you can come tell us that you took heroin this morning, it doesn’t matter, we’re not going to ring the Police or anything like that... yeah they were very accepting of it. So it’s a kind of common element of the work that you do? Yeah. There was a lot ... from kind of alcohol misuse to like class A drugs it was very, very common in what they saw everyday so they were quite accepting of it as it was the only way to be able to work with the individual... (interview 5, social work student)
Practice experiences and opportunities to work with illicit drug users, during the students’ first year of training, were reported by the majority of students interviewed \((n = 17)\) whose course contained a practice element. However, such experiences were often reported alongside a perceived lack of knowledge, which did not appear to be addressed during the students’ practice experience, even if substance misuse was a key area of need for the service users. The attitudes of placement staff towards working with illicit drug users did appear to vary, but interviewees were often able to recall experiences where the negative attitudes of existing practitioners, particularly those working in health care provisions, were evident. Despite encountering such attitudes, some interviewees \((n = 6)\) reported that their experiences of working with illicit drug users were likely to be beneficial in their future professional role.

**Education linked to illicit drugs**

All of the student nurses interviewed reflected on the education they had so far received, expressing the view that there was a lack of focus on illicit drug use within their course.

> There is no such thing as a taught session around drugs and what they can do to people. It tends to be media and peers where the information comes from. (Questionnaire comment, student nurse)

This feeling was also supported by comments from other student nurses \((n = 5)\) in the study questionnaire.
Needs to be taught more!!! (Questionnaire comment, student nurse)

The lack of any focus on illicit drug use reported by the student nurses was also apparent for the other sub-groups within the current study. Notably, several social work students raised this omission, despite one student specifically reflecting on their need for information during a practice placement.

I did my placement in a hostel where the clients are substance misusers and I have a better awareness of issues surrounding drug use. I have read on my own on issues regarding drugs while I was on placement. (Questionnaire comment, social work student)

Where a single social work student commented on receiving education linked to illicit drugs during their interview, they expressed the opinion that this was of poor quality.

We did have the odd bit of education on it for a couple of hours I remember, which turned into a daft lesson of people shouting out names for all sorts of drugs and it wasn’t really an education in it, it was more that the people that were probably were aware of drugs a lot more... Yeah. so could show off that they were more aware of it. (interview 1, social work student)

Participants in the current study consistently stated that, whatever knowledge they did have, had not been taught either within their
respective courses or during compulsory education. Students across all of the different courses sampled in the current study, expressed the feeling that education linked to the psychological, physiological or social effects of illicit drug use would be a valuable addition to their respective courses. They expressed the view that knowledge relating to the impact of illicit drug use on individuals and how drug users could be helped would be beneficial in practice placements during their course and in future professional roles once qualified.

Working with illicit drug users

All of the interviewees were asked if they would like to work with illicit drug users in future working roles. Despite concerns over their perceived lack of preparation during training, the majority of those interviewed (n = 21) expressed some interest in the possibility of working with illicit drug users in the future.

Is it something you’d be interested in doing in the future?
Yeah... So why would you like to do it? Well because, I think that there are people who use drugs because of some... harm, I mean like psychological, some pain they feel ... emotional and they need help to find other ways than drugs (interview 11, health and social care student)

Many of the interviewees, who expressed an interest in working with illicit drug users in the future, noted the social and psychological element to such work. However, exceptionally, one social work student, who scored the lowest of all of the interviewees on the attitude scale, indicating predominantly negative attitudes towards illicit drugs, stated:
My views are so strong, and er, from a religious perspective as well, you know, it’s cultural, its religious, it’s our upbringing, it’s just everything, it’s a way, you know, it’s like age as well, I feel like I’ve turned a certain age, you know, erm, so I think I’ve, even though my, you know, you could argue, yes, I don’t know a lot about drugs, I admit that... Mmmm and therefore some of my views are based on ignorance I suppose, I suppose you could say, well, sorry, perhaps you should have educated yourself perhaps a little but more, and you know, you could, it might change your views, but, maybe that might change me, I don’t view that, I don’t feel that odd, so I don’t feel that there’s anything that really would make me think differently or feel differently to what I do ‘cos I think in general they’re evil, yes, there are exceptions, an example is mental health, er, but in general, you know, these people are, are, you know, they’re a strain, a burden, and er, not useful to society (interview 9, social work student)

Interviewee 9 described previous working roles where they had been in contact with illicit drug users and other groups of service users, who they perceived in a similarly negative way. They commented that they were able to “detach” themselves and “have these professional values”. They noted that “the empathy was superficial” but that they were “still showing empathy” and thus did not feel that their views would impact on working relationships (interview 9, social work student). Interviewee 9’s comments were at the extreme end of the spectrum, and the majority of the students interviewed felt that they would like to work with illicit drug users. However, such comments
did reflect the wide range of views towards working with illicit drug users evident in the sample of students interviewed.

**Summary**

In order to answer research questions 1 and 2, relating to the factors that influenced the students’ attitudes toward illicit drug use at the start of their training, data associated with each theme was first analysed to identify patterns and opposing accounts. Following on from this level of analysis a thematic map was developed to visually represent how themes linked together. Thematic mapping highlighted the importance of the theme entitled ‘knowledge’ and its link to the students’ expressed views on illicit drug use. This theme appeared to develop from the students’ personal use of illicit drugs and the experiences they gained through social and environmental contact with illicit drug use.

Research question 2 focused on differences between the attitudes of student nurses and the students in the comparison groups. However, identifying group level difference was not particularly insightful in the qualitative data set. The depth and detail presented by the analysis of the qualitative data were viewed as complementary to identifying broader trends in the quantitative data.

Research question 3, sought to consider if there were any differences between the students’ attitudes at the start of their course and their attitudes at the end of their first year. Interviewees generally indicated that they didn’t feel that their attitudes had changed over this year. Since all of the students, with the exception of health and social care students, had been on practice placements during their first year of training, interviewees were also asked about their
experiences relating to working with illicit drugs users. Students recounted examples of how illicit drug users tended to be viewed more negatively than other patients/service users.

The following chapter draws together the important findings from the quantitative and qualitative data sets, linked to each of the research questions set for the current study.
Chapter 8: Discussion

This chapter discusses the findings from analysing both the quantitative and qualitative data generated in the current study. The aim of integrating these findings was to “provide complementary perspectives of a phenomenon so that a more complete understanding” could be obtained (Morse, 2001, p.209). Since the focus of the current study was closely linked to the education of future health and social care practitioners, particularly nurses, the implications of these findings will then be considered. However, set against any pragmatic utility there are limitations to the current study, which will be raised along with recommendations for further research linked to the topic area.

The overall approach used in the current study was to adopt a mixed methods design. One of the distinct advantages of using this approach is its ability to generate different perspectives on the research questions (Creswell, 2009). However, in achieving this aim there are important issues that need to be considered if robust claims or conclusions are to be generated from the results of data analysis. White (2009) pointed out that, whilst it is common for researchers to report the results of data analysis and make claims based on their findings, it is rare for such claims to be effectively warranted. Gorard (2003, p.148) succinctly defines a warrant as “an assumption that links the evidence to the claim made from it”. Failure to effectively warrant claims leads to a situation where it is difficult to rationally evaluate any findings or conclusions presented by the researcher (White, 2009).

Plowright (2011) used the term ‘warrantable research’ to describe how the process of enquiry should lead to supported conclusions linked to the research questions set for a study. He described a model
that enables the researcher to envisage how the elements of a research project fit together in ‘warrantable research’ (see Figure 13).

![Figure 13. Framework for warranting research conclusions (Plowright, 2011, p.139).](image)

Plowright (2011) set out the advantage of using such an approach:

> Unlike some research approaches, explaining findings by drawing on warrantable evidence acknowledges the complexity of the research process. In particular, it treats the idea of cause and effect as being multifaceted and not a one-stage step that identifies a particular cause having a particular effect. (p.142)

Using this model requires the researcher to consider the decisions taken at each stage of the research process in developing their understanding of the phenomena being studied (Plowright, 2011).

The ‘backing conditions’ set out by Plowright (2011) are sub-divided into context, cases, method and data, and influence the strength of any claims which can be made based on the evidence generated in a study. The context of a study refers to a researcher’s personal and professional justification for conducting the research, policy and
theoretical literature influencing the area of study, and the location or organisational setting in which it was conducted. ‘Cases’ refers to the appropriateness of the sampling techniques in providing the depth and diversity of cases necessary to effectively answer the research questions set for a study. The backing conditions of ‘method’ and ‘data’ are both linked to the choices made by the researcher about what data are required, how to collect this data set and then how it should be analysed. All of these ‘backing conditions’ are significant factors in warranting the claims made in a study.

In the current study, these ‘backing conditions’ have previously been discussed in the Introduction, Literature Review, Methods, Quantitative and Qualitative Results chapters, leaving this chapter to focus on the claims or inferences developed from the findings of the current study. However, in formulating any claims or inferences it is important to consider alternative explanations or possible rebuttals, identified as ‘qualifying conditions’ in Plowright’s (2011) framework. In so doing the researcher is maintaining an element of caution when considering their findings and developing inferences (Plowright, 2011).

**Research questions**

The following discussion has been structured around each of the three main research questions and four sub-questions (see pp.82-83) set for the study. Research question 1 was descriptive in nature, aimed at exploring the factors that have contributed to the attitudes of student nurses, toward illicit drug use, at the start of their training. The question was divided into three sub-questions (1.1, 1.2 and 1.3), considering the influence on the participants’ attitudes of personal use of illicit drugs, use by family or friends and the perceived
commonality of illicit drug use in the environment in which the student grew up. Research question 2 was a comparative question (White, 2009) considering the possibility of differences in attitudes between the different sub-groups of health and social care students at the start of their respective courses. Research question 3 initially required comparisons between the summative attitude scores gained by the student nurses at the start of training with those gained at the end of their first year. Sub-question 3.1 required comparisons between the two summative scores obtained for each group of students involved in the current study.

Research question 1.1: Do student nurses with a history of illicit drug use have different attitudes to those with no history of illicit use?

The first sub-question focused on illicit drug using behaviour, considering possible links between the students’ self-reported illicit drug use and their scores on the attitude scale. Just over half (52%, \( n = 79 \)) of the student nurses had tried at least one illicit drug at some point in the past, with an almost identical figure (53%, \( n = 99 \)) for the students in the comparison groups. For ethical reasons students who took part in the semi-structured interviews were not specifically asked about their personal use of illicit substances, however, several interviewees (\( n = 7 \)) did disclose illicit drug use during the course of their interview. These interviewees (five student nurses, one health and social care student and one social work student) differed in the level of their illicit drug use and choice of drug, with only one student nurse reporting current use of cannabis.

Despite the fact that identifying rates of illicit drug use amongst student nurses was not an aim of the current study, the rates of illicit drug use in the previous year, identified in order to answer research
question 1.1, were very similar to those reported in the general public (Hoare & Moon, 2010). These results are noteworthy, as no other studies could be found which indicate rates of illicit drug use amongst nursing students in the UK. Whilst this result is perhaps unsurprising, this does indicate behaviour in contradiction to the NMC code of conduct (NMC, 2008). Previous studies have identified rates of illicit drug use amongst students studying different courses (Webb et al., 1997; Sell & Robson, 1998) and two studies from the USA (Haack & Harford, 1985; Baldwin et al., 2009) reported rates of illicit drug use amongst student nurses. However, differences between sample groups and disparities between how illicit drug use is perceived in the USA and UK limit possible comparisons between these studies and the current study. In addition, the Haack and Harford (1985) study was carried out nearly 30 years ago, situating both studies in very different points in the history of illicit drug use. Despite such clear reservations, some limited support for the findings of the current study can be gained from Baldwin et al. (2009) who found rates of illicit drug use, amongst a sample of 929 student nurses in the USA were similar to rates in the general public.

In terms of the impact of personal use of illicit drugs on attitudes, both bivariate analysis of the data for the student nurses and multivariate analysis of the data for all the students in the current study indicated that students with experience of any of the illicit drugs listed in the questionnaire (see Appendix A) tended to gain higher summative scores on the attitude scale. This could suggest that these students’ personal experiences of illicit drug use had influenced their attitudes in such a way that they had been able to override the dominant messages of the negative impact of illicit drug use presented within society and the media. It could also be argued that these students had not used illicit substances at a problematic
level, thereby reinforcing a positive affective response to the illicit drug used. This tendency toward personal experience of illicit drug use being associated with more tolerant attitudes became rather less straightforward when analysing the small number of interviewees who disclosed illicit drug use. A more complex picture emerged from the qualitative data set, with some interviewees, who appeared to distance themselves from their early experimentation, tending to express more negative views than those who appeared to be more accepting of past (and in one case current) experiences.

The student nurses who disclosed illicit drug use during their interview all appeared to be aware of society’s and/or their profession’s disapproving view of illicit drug use. They consistently went to some lengths to state that their drug use was controlled or explained their experiences as the folly of youth. This may simply reflect the fact that the researcher was also a lecturer and qualified nurse, which resulted in the student nurses feeling the need to distance themselves from their behaviour. This observation gains some limited support from the point that the two students studying other courses were more inclined to discuss their past experiences of illicit drug use as a learning experience which could prove beneficial to future client/patient contact. However, Johnston and O’Malley (1997) noted that individuals who enter occupations where illicit drug use is unacceptable are more likely to deny earlier experiences. This may be reflected in these students’ comments, as illicit drug use is a contradiction to the nursing code of conduct (NMC, 2008).

These findings, whilst supporting the idea that the use of illicit drugs was a relatively common activity amongst participants in the current study, do not support the normalisation thesis, as set out by Parker et al. (1998), Measham et al. (2001) and Parker et al. (2002). Even
though those students who had used illicit drugs tended to score more highly on the attitude scale, there were indications amongst interviewees that illicit drug use should not be condoned or seen as an acceptable activity. This was expressed by those student nurses who acknowledged their own illicit drug use and the majority that did not disclose drug use during the interviews in the current study. Students often expressed a degree of agreement with society’s, their profession’s and the media’s perspective on engaging in illicit drug use, acknowledging that the activity is largely seen as unacceptable. Clearly the acceptability of illicit drug use by users and nonusers, noted by Parker et al. (1998) as one of the mainstays of the normalisation thesis, was not evident in the current study.

In addition to differences in how the interviewees described their personal experiences of illicit drug use, there were also differences in how they perceived certain drugs and the individuals who used them. Heroin in particular was seen in terms of crime and social deprivation and perceived as leading to addiction. Such stereotypical images of heroin and those who use it tend to reflect the dominant media discourse associated with the drug (Taylor, 2008). Views on heroin and how it is associated with the concept of ‘addiction’ tend to support the point made by Allcock and Toft (2002), that student nurses overemphasise the risk of opiate dependency amongst patients. In contrast to the stereotypical views on heroin and its addictive potential, there did appear to be a wider acceptance of ecstasy, despite it being in the same classification under the Misuse of Drugs Act (HO, 1971), and cannabis in terms of their potential for recreational use. This position does concur, to some degree, with Parker et al.’s (1998) view that certain drugs, particularly those associated with socialising, appeared to be more acceptable.
Research question 1.2: Do student nurses with friends or family members who have used illicit drugs have different attitudes to those with no friends or family members who have used illicit drugs?

The second sub-question widened the focus of enquiry from the students’ own use of illicit drugs, to the use of illicit drugs within close social networks. The majority of the student nurses (59%, $n = 89$) who completed the questionnaire indicated that they were aware of illicit drug use by family or friends and only three of the interviewed student nurses indicated that they were not aware of family or friends who had used illicit drugs. Comparing group means and multivariate analysis indicated that those students who were aware that family or friends had used illicit drugs tended to gain higher scores on the attitude scale, indicating more positive attitudes towards illicit drug use. However, measures of dispersion indicated a wide range of summative attitude scores in both sub-groups (those who were aware and those who were not). The wide range of scores gained by students who reported an awareness of illicit drug use amongst family or friends may reflect whether these experiences were positive or negative. Amongst those who reported no awareness of illicit drug use within close social networks, the range of scores was more likely to reflect a stronger influence of other factors.

Analysis of the qualitative data added a more detailed understanding to the rather simplistic association between attitude scores and illicit drug use by family or friends found in the quantitative data. The majority of the interviewees ($n = 22$) reported that they were aware that family and friends had used illicit drugs, although their summative attitude scores ranged from $-5$ to $+10$, reflecting the diversity of individual scores identified in the quantitative analysis. These interviewees regularly recounted examples of illicit drug use by family or friends, with some interviewees describing problematic use
within close social networks and others more positive experiences (see Chapter 7, pp.222-226). These examples were consistently reported as influencing the students’ own drug use and their attitudes to illicit drug use. Positive examples were recounted to illustrate why the student was more tolerant towards the use of a particular illicit drug and negative examples to support less tolerant attitudes.

Existing studies focusing on the drug using behaviour of adolescents and young adults confirm the view that close social networks, such as family and friends, are important influences on drug using behavior (e.g. Allen, 2003; Miller & Plant, 2003). Whilst small-scale studies such as Allen (2003) may be criticised for concentrating on a particular sample of young people in a fixed geographical location, larger studies such as Miller and Plant (2003) have considered a wider sample of young people from across the UK. The overall consensus presented in the literature is that the attitudes and behaviour of peers and family members influence an individual’s drug use. The current study further suggests that family and friends also have a discernible impact on an individual’s attitudes towards illicit drug using behaviour.

Theoretical models such as the Theory of Planned Behaviour [TPB] tend to support an association between the behaviour and attitudes of significant others, emphasising ‘normative beliefs’ and the ‘motivation to comply’ as factors leading toward a particular behaviour (see Figure 2, p.47). However, there are also many difficulties in measuring such vague concepts in models like the TPB (Armitage & Conner, 2001). In practical terms it is very difficult to explore any links between a subjective appraisal of the views and behaviours of significant others and an individual’s own behaviour. Despite such problems, research using the TPB as a framework has
highlighted the influence of the behaviour and attitudes of significant others, particularly amongst younger adults (e.g. Harakeh et al., 2004). In addition to this, the current study suggests that the behaviour of significant others is an important influence on the student nurses’ attitudes.

The TPB has often been used in predicting the behaviour of younger adults, but as previously noted, recruits to nursing are diverse in terms of many factors including social background, ethnicity and age (NMAS, 2006). Research into illicit drug use has often focused on adolescents or young adults, possibly due to the ease of accessing such groups through leisure activities (such as youth clubs) or educational institutions. Studies such as the BCS (Hoare & Moon, 2010) do suggest that adolescence is a key period of experimentation with illicit drugs, adding a justification for focusing on this age group, but many of the students in the current study did not fit into the adolescent/young adult age bracket.

There is some evidence that individuals are not only influenced by the attitudes of significant others, but also establish relationships with those with similar interests. Harling (2007) focused on adult illicit drug users (25-37 year olds), considering the ‘place and meaning’ of the activity amongst a small group (N=6) of individuals engaged in full-time employment. The study indicated that these older recreational illicit drug users had friends with similar attitudes towards illicit drug use or modified their use around acquaintances who were considered disapproving (Harling, 2007). These individuals developed social networks in line with their existing views and behaviour, rather than simply being passively influenced by the attitudes and behaviour of significant others. This indicated a much more active role in developing social networks, than implied by
studies of adolescent drug use, such as Allen (2003), or suggested by theoretical models of predicting behaviour like the TPB.

In the current study, whilst it was clear that students who were aware of family or friends who used illicit drugs tended to score more highly on the attitude scale, the direction of this association cannot be assumed to be as obvious as implied in the TPB. It is reasonable to suggest that individuals using illicit drugs are more likely to disclose such behaviour to relatives or close acquaintances who themselves have more tolerant attitudes toward illicit drug use. Thus more tolerant attitudes could lead to an increased awareness of drug use amongst family or friends through increased disclosure, as opposed to awareness of illicit drug use amongst family or friends leading to improved attitudes.

What was clear in the current study was that the examples recounted by participants, linked to the experiences of illicit drug use amongst family or friends, were a significant influence on the student’s current view on the subject. This appeared to be the case whether the examples described related to negative or positive experiences of illicit drug use. When considered in terms of the tripartite model (see discussion in Chapter 2, pp.6-9), the examples recounted by participants, particularly those from a negative perspective, seemed to be firmly within the affective, as opposed to the cognitive, domain. Thus appraisals of a particular illicit drug appeared to be processed rather more emotively than cognitively, indicating that negative attitudes might prove difficult to change simply through the presentation of knowledge or facts.
Research question 1.3: Do student nurses who grew up in an area or environment where illicit drug use was common have different attitudes to those who did not grow up in an area or environment where illicit drug use was common?

The third sub-question focused on possible associations between the commonality of illicit drug use in the areas where the student grew up and their attitudes. The quantitative data, collected in order to answer this research question, were obtained from analysing the participants’ responses to the question ‘was illegal drug use common in the area/environment in which you grew up?’ This question had four response categories, allowing students to pick one of three options (‘agree’, ‘disagree’ or ‘don’t know’) in addition to an opt out response (‘don’t want to comment’) (see Appendix A).

On initial consideration, the findings from the quantitative data did not result in a clear answer to this question. In Plowright’s (2011) framework such an outcome may be attributed to issues arising from a failure in adequately acknowledging one of the backing conditions. In the case of the current study the limited detail obtained from the questionnaire did appear to have some impact on answering this research question, indicating a possible issue in the backing condition ‘method’.

In the qualitative element of the current study, all of the interviewees were asked to describe their background, including details about the area in which they grew up, and space was provided on the study questionnaire for students to provide comments if they so wished. Analysis of these data provided some insight into the lack of clarity gained from the quantitative data. When describing their personal background, interviewees mentioned diverse geographical locations
within the UK and abroad and a wide range of social and economic backgrounds. However, descriptions of the environment in which they grew up were often entwined with accounts of illicit drug use amongst friends, siblings or peers. This highlighted an association between illicit drug use within close social circles (family and friends) and the environment in which the student grew up. In the qualitative analysis this relationship led to the development of a theme entitled ‘personal background’ encompassing the sub-themes of ‘use by family and friends’ and ‘environment’ (see Figure 12, p.238). However, one interviewee commented on how their family was not integrated into the local community, indicating that this association may be weaker for some individuals.

Associations between environment and social networks are often overlooked in discourse associated with illicit drug use. The media have a tendency to report stories entrenched in either the private domain, such as the case of Leah Betts, or the public domain, describing illicit drug use by different groups in society (Giulianotti, 1997). Thus it is unusual for close social networks and wider environmental factors to be considered as linked.

Over recent decades, environmental perspectives on illicit drug use have tended to view the activity from the standpoint of theories linking the activity to urban decay and degeneration (Shiner, 2009). Such theories emerged from the 1960s onwards and have been supported by representations in the media of disenfranchised communities and a range of ‘deviant’ groups of individuals (Coomber, McElrath, Measham & Moore, 2013). Media stories tend to link such activity to a threat to traditional mainstream institutions, including the family and community (Giulianotti, 1997) and this position appears to have influenced national policy linked to illicit drug use.
Such perspectives on illicit drug use, whilst acknowledging the possibility that the social environment may influence illicit drug use, tend to minimise the idea that individual's are able to act against environmental circumstances. However, in the current study there was evidence that participants were able to act in ways which would appear contradictory to what might be expected given their descriptions of their background.

Ideas around structure and agency provide a broader explanatory basis, suggesting that individuals have free will or ‘agency’ in adapting to their social environment. The ability to exercise agency, despite childhood and early adolescent environmental experiences and social exposure to illicit drug users, was reported by several participants in the current study. Such agency appeared to have been exercised despite self-reports of quite extreme experiences linked to the use of illicit drugs, thus supporting the idea that individuals are not simply passive responders to their circumstance. This does support the idea of structuration theory (Giddens, 1984; Giddens, 2002), however, it is important not to generalise such a point beyond the confines of the current study. Respondents in the current study may not be representative of other individuals from within the participant’s close social circles or communities. Several interviewees in the current study noted how they were the first member of their family or peer group to attend university. This suggests that they may differ in some way from their peers or family in exercising their free will or choice in engaging in common activities within their environments.

Despite difficulties in separating the effect of growing up in an area where illicit drug use was common and use within close social circles, the students’ personal background was seen as important.
Interviewees, who indicated that illicit drug use was common in their social circles and childhood environment, tended to express the view that these experiences formed the basis of their knowledge about illicit drugs, thus establishing a clear link to the theme ‘knowledge’ in the qualitative data (see thematic map, Figure 12, p.238). The importance of the students’ ‘personal background’ on their knowledge did not appear to alter with the age of the interviewee, with some interviewees describing experiences that occurred up to three decades in the past, indicating that these were still significant to their views in later adulthood. Such longstanding perspectives are likely to prove difficult to challenge in educational settings using approaches that simply rely on presenting facts associated with illicit drug use, therefore failing to address the affective component of the tripartite model.

Research question 1: What factors influence the attitudes of student nurses toward illicit drug use at the start of their training?

Data generated in the current study indicated that personal use of illicit drugs (sub-question 1.1) and awareness of illicit drug use by family and friends (sub-question 1.2) were associated with the student nurses gaining higher summative attitude scores. The impact of the commonality of illicit drug use in the environment in which the student nurses grew up (sub-question 1.3) on their summative attitude score was rather less clear, although this factor appeared to be linked to use by family or friends and personal use of illicit drugs. It is also important to note that for each of these three sub-questions, the impact of each factor depended on how an individual interpreted their experiences at both cognitive and affective levels. Hence, whilst patterns and trends emerged from the data, individual students were clearly able to digress from such trends.
Alongside the factors measured in sub-questions 1.1, 1.2 and 1.3, several other factors were investigated for possible associations with the student nurses’ attitudes towards illicit drug use at the start of training. These factors were identified from existing literature linked to the focus of the current study and are discussed in detail in Chapter 3 (pp.45-82). Since no previous studies could be found which gave a specific indication of which factors needed to be measured in the current study, it was necessary to adopt a broad focus in reviewing the literature. A range of factors was identified which it was thought could be associated with the attitudes of the students involved in the current study. However, as 6 and Bellamy (2012) pointed out, it is important to be parsimonious when undertaking social sciences research, measuring and retaining variables on the basis that they have the potential to add to descriptions rather than simply using what is readily available to the researcher. This was the overall emphasis in the current study, focusing the author’s attention on the factors that could be important in their association with students’ attitudes.

In addition to the factors measured for questions 1.1 and 1.2, the dummy variable comparing A-Level/NVQ to Degree was retained in the final regression model along with three dummy variables comparing the student nurses to three of the comparison groups (see Table 17, p.208). The students’ highest entry qualification was measured because existing literature, which compared differences in the attitudes of groups of qualified health and social care workers, indicated that this might influence attitudes (Richmond & Foster, 2003; Raistrick et al., 2007). However, the impact on attitudes reported in existing studies was unclear with Richmond and Foster (2003) finding that workers with a postgraduate qualification had the most tolerant attitudes, whilst Raistrick et al. (2007) found that those
with the least training had better attitudes. In the current study, due to the small numbers, the difference between student nurses who entered training with A-Level/NVQ qualifications and those with a degree should be viewed with extreme caution. Whilst all of the clinical psychology trainees \( n=16 \) entered training with a degree, only 8\% \( n = 12 \) of the student nurses entered training with a degree. Since there were identified differences between these two groups of students, the difference between those student nurses who entered training with A-Level/NVQ qualifications, as opposed to those with a degree, cannot be fully supported. The bivariate analysis of the student nurses’ entry qualifications only indicated a small effect size, considered insufficient evidence to support a claim of difference based on entry qualification in the student nurses.

The other variables, which were identified as possible factors impacting on the student nurses’ attitudes, when reviewing literature associated with attitudes towards illicit drug use or drug using behaviour, were religion, ethnicity and age. The BCS (Hoare & Moon, 2010) identified differences in patterns of drug use based on demographic details such as age and ethnicity, and studies (such as Engs & Mullen, 1999; Drumm et al., 2001) have identified differences which they ascribed to religion. However, none of these factors were identified as sufficiently impacting on the student nurses’ attitude scores in the current study. Differences in how variables such as religion were measured, and very small numbers in some of the categories in the current study, may account for some discrepancies between the findings of the current study and existing literature. In addition, the current study focused on attitudes towards illicit drug use, rather than simply considering drug-using behaviour, as measured in the BCS (Hoare & Moon, 2010). Whilst there is literature to support the association between attitudes and behaviour,
theoretical models such as the TPB highlight that such links are far from straightforward, thus direct comparisons remain problematic.

Beyond personal experiences of illicit drug use and use within close social networks, the media was reported as a source of knowledge on illicit drugs by several students in the current study. This is important because, as previously noted (see Chapter 2, pp.25-27), media perspectives on illicit drug use tend to be biased toward presenting a particular (often negative) view on the subject. Since none of the students who completed the study questionnaire or were interviewed, indicated that formal education on the topic was a key factor in developing their knowledge base, exploring and challenging common media representations of illicit drug use appears to be important in developing any approaches to education.

Research question 2: How do the attitudes of student nurses, at the start of their training, compare with other health and social care students at a similar stage of higher education?

There are several existing studies that have considered the attitudes of health and social care professionals towards working with illicit drug users (e.g. Richmond & Foster, 2003; Watson et al., 2006; Raistrick et al., 2007). There are however, fewer studies that have compared attitudes between members of different professions (e.g. Richmond & Foster, 2003) and no studies could be found that considered differences between groups of health and social care students/trainees. Therefore the current study fills a gap in existing knowledge, adding to the limited literature focused on the attitudes of different trainee professional groups toward illicit drug use and drug users.
The results from the quantitative data analysis conducted in the current study highlighted differences in the attitude scores between students studying different courses. This analysis suggested a distinct hierarchy in the group summative attitudes scores, with student nurses generally obtaining the lowest group means, indicating more negative attitudes towards illicit drug use, and clinical psychology trainees the highest attitude scores, indicating more positive attitudes towards illicit drug use.

Speculation about why such variation may have occurred in the attitude scores of different groups of students in the current study requires a degree of caution. As White (2009) pointed out, explanations for a phenomenon, event or important finding in any research study need to be preceded by a clear identification that the phenomenon of interest actually exists. It is important to acknowledge that a convenience sample of student nurses and the particularly small number of students representing some of the comparison groups involved, may have had an impact on the mean summative attitude scores identified in the current study. However, there are some studies within the existing literature that also identified differences between the attitudes of groups of workers in the caring professions. A notable study by Richmond and Foster (2003) found that qualified social workers scored higher on the permissiveness scale of the SAAS, meaning that they had a more tolerant attitude toward substance misuse, than nurses. Certainly, social work students generally indicated more positive attitudes towards illicit drug use in the current study, as did clinical psychology trainees.

The differences between groups of trainees found in the current study may be explained by differences in the emphasis of the professional
groups represented by the comparison groups. As discussed in the literature review for the current study (see Chapter 2, pp.38-43), whilst the nature of nursing has undoubtedly changed over recent years, with extended roles encompassing many tasks previously undertaken by medics, nursing has retained elements of its strong traditional link with medicine. Despite the evolution of nursing through professionalisation and increased levels of training, close links with medicine and the role of medics are clearly retained in the day-to-day management of patient care, with medics delegating tasks to nurses (Annandale & Field, 2003). Such a relationship between the nursing and medical professions is likely to influence perceptions of treatment and care. Within the treatment of individuals using illicit substances, bio-medical perspectives and the disease model of addiction have proved dominant since the turn of the 20th century (McMurran, 1994). The problem with such a view is, as Davies (1997, p.48) suggested:

The fact that the short and longer-term disruptions of behaviour which sometimes result from taking drugs can become the occasion for postulating drug taking as a disease manifestation shows a familiar confusion; namely the confusion of intentions with outcomes. For example, during the late 19th and early 20th centuries, missionaries went to Africa where many of then caught malaria and died. The disease was Malaria; not the decision to go to Africa... in a similar way, damage to health caused by drugs does not imply that the decision to take them is pathological.

Whilst this is an important point which challenges bio-medical perspectives on addiction, such perspectives are still a powerful
driving force in substance misuse services in the UK (see Chapter 2, pp.20-24).

The differences identified between the groups of students in the current study might reflect broader differences in professional views linked to substance use. Clinical psychology trainees and social work students generally indicated more positive attitudes towards illicit drug use than the student nurses. This could be indicative of a less medically orientated view on illicit drug use from within these professions. It is possible that the clinical psychology trainees and social work students involved in the current study might view illicit drug use as indicative of a professional involvement, suggesting a need for a psychological or social work intervention. The student nurses, on the other hand, might see illicit drug use as a hindrance in the treatment of other medical conditions.

Gillespie and McLaren (2010) noted that the way that the nursing profession is presented in the media has a significant impact on the expectations of new recruits. Nurses are often portrayed as being involved in "highly-skilled, life-saving intervention taking place during brief, if rather frequent, emergencies" (Gillespie & McLaren, 2010, p.706). Such views appear to lead to student nurses seeing working with longer-term conditions and vulnerable groups as a less worthwhile clinical experience (Gillespie & McLaren, 2010). Thus it is reasonable to suggest that the student nurses might not have viewed working with illicit drug users as a professional learning experience (or future nursing role) in quite the same way as the clinical psychology trainees or student social workers.
Despite the plausibility of such an explanation, there is some evidence from the current study which could be seen as rebutting such a perspective. The group of post-registration midwifery students, who were all registered as a nurse prior to entry into midwifery, might also be expected to approach substance misuse from a bio-medical perspective. However, these students also gained a higher group mean score on the summative attitude scale than the student nurses. Therefore, whilst the findings of the current study do tend to support Richmond and Foster’s (2003) suggestion that social workers are more tolerant and post-graduate workers tend to be less moralistic toward illicit drug users, further research would need to be conducted in order to more fully explain the reasons for such findings.

It is also important to note that the student nurses in the current study may not represent the same views as established professionals. However, Blane (2000) made the suggestion that professions such as medicine are intrinsically linked to the state, with the state officially sanctioning a particular profession as experts in a field, allowing them to become part of the state; the agents “through which the means, and perhaps the ends, of government are expressed” (Blane, 2000, p.223). If this is the case then it is likely that recruits to a particular profession would ascribe to similar views, leading to their choice to enter a profession. Alternatively it is feasible that such views could be influential in the recruitment of new members to the profession, if existing professionals are involved in selection processes.

In the current study, the nature of the qualitative data and numbers of students interviewed in some sub-groups, meant that group level comparisons between interviewees were not particularly insightful in providing more detailed data to answer question 2. Other approaches
to collecting qualitative data were considered in order to address this problem, including the possibility of using focus groups. Focus groups have the advantage of encouraging debate around a topic of interest, allowing informants to elaborate on the issues and points raised by other informants (Wilkinson, 2004). Kitzinger (1995) noted that a focus group can be empowering, facilitating the participants to voice their views on a subject and explore wider structural and societal influences on their experiences or views. Whilst such an approach to data collection may have proved useful in expanding the qualitative data set, logistical issues, such as gaining a suitable location and time in order to conduct a focus group, proved prohibitive in the HEIs involved in the current study. These issues were compounded when considering focus groups comprising of students attending different courses. This approach may have proved particularly useful when answering research question 2, allowing possible differences between students studying different courses to be investigated in the focus group. However, the problems in organising a suitable time and location were heightened by timetabling issues and data collection at different geographical locations.

Overall whilst the quantitative element of the current study does support clear differences between the attitudes of different groups of student health and social care professionals, mirroring the results found in studies of qualified professionals (Richmond & Foster, 2003; Watson et al., 2006; Raistrick et al., 2007), further research would be needed to support a clear explanation for such a difference.
Research question 3: Is there a change in the attitudes of the student nurses that can be linked to their first year of nurse education/training?

The attitudes of participants in the current study were measured at the start of training and then again at the end of the students’ first year. In the case of the student nurses this time frame encompassed the Common Foundation Programme [CFP], identified as the time period over which the greatest changes in attitudes could be expected to occur (Allcock & Standen, 1999; Allcock & Toft, 2002).

In the current study the design of the anonymous questionnaire enabled questionnaires to be matched at an individual level, allowing the use of statistical techniques suitable for repeated measures. In addition to this approach the mean attitude scores for all of the student nurses who completed questionnaires at the start of their training and at the end of their first year were also compared. However, analysis of the matched data obtained from the student nurses (n = 116) and comparisons of the group means for both time points failed to indicate difference at a sufficient level of magnitude (medium effect size) to support claims of any substantial change in the summative attitude scores over the students’ first year of training. This finding was repeated for all the comparison groups in the study, indicating that changes observed in the group mean scores and matched data were only small in magnitude (see Table 14, p.196 and Table 15, p.197). Nevertheless, despite the magnitude of such changes, there were changes in the group mean scores for all of the groups of students involved in the current study. The mean attitude scores for the student nurses increased very slightly, whilst the mean attitude scores for all of the comparison groups decreased very slightly. This increase in the mean summative attitude score for the student nurses does suggest a very slight improvement in their
attitudes over the first year on their course (CFP), albeit at a level considered insufficient to support any significant claims of change based on these findings.

The CFP was chosen as it was considered to be the time period over which the most changes in attitudes could be expected during the three year course (see Chapter 5 pp.154-156). During the CFP the student nurses were expected to reflect on their personal values and how these might influence patient care, the expectation being that changes in attitudes would be seen, particularly where negative attitudes towards certain groups of individuals might exist. This was not found to be the case in the current study, tending to support the point made by Allcock and Toft (2002), that there were other more important factors, aside from entering nurse education, responsible for the student nurses’ attitudes. This finding suggests that some thought should be given to the impact of the CFP and its ability to change pre-existing negative attitudes and values within nursing recruits. It would appear that simply engaging in the CFP is not sufficient in challenging negative attitudes toward illicit drug use to a sufficient degree to instill discernable change.

Practice experiences

In addition to measuring the students’ attitudes at the start of their course and at the end of the CFP, the potential impact of several factors, occurring between the start of nurse education and the end of the first year were also considered. Comments made during interviews and on the study questionnaire indicated that students felt many practitioners, particularly those working in healthcare as opposed to social care settings, viewed illicit drug users negatively. Over half of the student nurses (55%, \( n = 65 \)) indicated that they felt
that illicit drug users were thought of differently to other patients/clients. Despite the fact that this question purposefully lacked direction (i.e. it could be read as thought of more positively or negatively), the students interpreted this as being thought of negatively. Whilst the observations made about treatment were a little more reassuring, with only 34% ($n = 40$) of the student nurses indicating that they felt illicit drug users were treated differently (again taken as meaning negatively), any such observation raises concern. Clearly student nurses and the other students involved in the current study (with the exception of the health and social care students) were coming into contact with illicit drug users in a range of health and social care settings during their early practice experiences.

Whilst there are no existing studies which focus on the impact of working with illicit drug users during practice placements, Gillespie and McLaren (2010) and Gillespie (2013) considered whether a reluctance amongst student nurses to work with certain client groups, such as older adults or individuals with a mental health diagnosis, might change after a practice placement. Gillespie (2013) noted that the stigma associated with working with such groups appeared to be firmly established prior to the students entering nurse education and appeared to be particularly relevant when students were working in placements outside their preferred clinical specialty (as in the CFP). In order to challenge such negative perceptions of certain client groups, Gillespie (2013) suggested a clearer emphasis on how care should be approached, focusing on a holistic perspective on patients’ needs. Gillespie and McLaren (2010) noted the importance of a positive placement experience in students’ attitudes towards working with such groups in the future. It was recognised that this needed to be established by clear moves in the educational curriculum, linking teaching to practice skills in conjunction with practitioners in the
practice placements. However, in contrast to the focus of the current study, Gillespie and McLaren (2010) and Gillespie (2013) referred to specific practice placements in the CFP, involved in the care of older adults, individuals with mental health problems, intellectual or physical disabilities. In the case of illicit drug users, who may receive care in a wide variety of health and social care settings, it is rather more difficult to create a synergy between the educational input received by student nurses and preparation for practice.

In the current study students reported being exposed to negative attitudes amongst established practitioners, a finding which requires some consideration in terms of the possible “acculturation” (Randle, 2002, p.256) of neophyte student nurses into ways of working with illicit drug users. Acculturation may see student nurses wishing to comply with their interpretation of the ‘normative beliefs’ of existing staff within the practice setting. This could result in student nurses working in a way which opposes their personal attitudes, thus raising the need to work with existing practitioners in order to improve the placement experience linked to working with illicit drug users.

Classroom experiences

In addition to the experiences students gained in the practice environment it is also important to consider the education they received about illicit drug use through the taught element of their course. The influence of prior education on the student nurses’ attitudes toward illicit drug use at the start of their course was rather unclear when analysing the questionnaire data (see Chapter 6, pp.184-185). Hours in education, with a focus on illicit drug use, was removed from the final regression model and only had a weak positive association with the student nurses’ attitude scores,
indicating a slight increase in attitude scores as number of hours increased. However, interviewees were asked about the education they had received up to the end of their first year on their respective course. Many of those interviewed expressed the view that they would like to see a clearer focus on the topic within their course.

All of the interviewed student nurses and the majority of the other interviewees confirmed that their current courses had not contained any explicit focus on substance misuse during the first year. Exceptionally one social work student (interview 1) did mention a ‘daft lesson’ lasting ‘a couple of hours’ where the names of street drugs were shouted out in class. This lesson did not appear to be consistent with a planned addition to the social work curriculum as suggested by authors such as Galvani and Hughes (2010). In the absence of any planned focus in the curricula, the majority of the interviewees remarked on the fact that their views on illicit drug use had emerged from personal experience and/or the media. As previously noted (see Chapter 2, pp.25-27), the media do not tend to present a balanced view on illicit drug use supported by appropriate sources of evidence. Challenging the view of illicit drugs and drug users portrayed in the media would appear to be indicated in any planned educational experience.

Certainly it is reasonable to suggest that if the students had received some education around illicit drugs and drug-using behaviour over the first year of education an improvement in their attitude score may have been detected in the current study. However, using an appropriate approach to focusing on illicit drug use appears to be important, particularly if long established attitudes are to be challenged.
Possible implications for nurse education

It is important to note that the design of the current study does not support generalisations to all student nurses, particularly since this is an area of knowledge where there is a paucity of existing research to support such claims. However, the current study contributes to an understanding of the factors associated with the attitudes of participants in the study and indicates some potential areas for future consideration in nurse education. Cherryholmes (1992, p.13) pointed out that research in the ‘pragmatic tradition’:

seeks to clarify meanings and looks to consequences. For pragmatists, values and visions of human action and interpretation precede a search for descriptions, theories, explanations, and narratives. Pragmatic research is driven by anticipated consequences... Values, aesthetics, politics, and social and normative preferences are integral to pragmatic research, its interpretation and utilization.

In terms of the current study, the author’s interest in considering attitudes towards illicit drug use emerged from practice experiences related to working as a nurse within the substance misuse field and an interest in the education of recruits to health and social care professions, particularly student nurses. Attitudes varied both within the group of student nurses and the comparison groups with some students expressing relatively positive attitudes towards illicit drug users and working with such individuals, whilst other students were rather more negative. Whilst the link between attitudes and the subsequent behaviour of individuals is far from straightforward, with a range of factors influencing how attitudes are expressed (Ogden, 1996), this may have implications for the care of illicit drug users in health and social care settings. As Taylor (2003) noted:
The ideas that nurses have about diseases and about patients influence their relationships with patients. Although the personal characteristics of patients and practitioners are not supposed to intrude into or influence treatment, the evidence is that they do have some effect upon relationships (for both doctors and nurses), and they may influence patient care. (p.39)

It is the author’s contention that this possibility raises the importance of considering illicit drug use as a topic within nurse education and that this is an issue that is also relevant to the education and training of other health and social care professionals.

The findings of the current study do not suggest that the move to degree level education for all nursing programmes by 2013 will automatically lead to substantial improvements in the attitudes of student nurses towards illicit substance use or working with illicit drug users. The attitude scores of the student nurses were only marginally lower, indicating only slightly lower levels of tolerance towards illicit drug use and drug users, than the group of health and social care students who were already undertaking a degree. Therefore it appears reasonable to assume that the move toward degree programmes alone will not necessarily improve the attitudes of future student nurses towards illicit drug use or working with illicit drug users, unless other changes, such as alterations in the selection criteria for nursing courses, also occur at this point (and contribute to attitude change). This raises the importance of considering how educational approaches aimed at addressing negative attitudes, may be integrated into nurse education.

There is existing literature, which supports the idea that nursing curricula in the UK should include a clearer focus on substance use and misuse (Rasool, 1993; Rassool & Oyefeso, 1993; O’Gara et al.,
However, whilst there are articles from Australia (Norman, 2001b) and the USA (Hayes, 2002) considering how this might be approached, only one article could be found describing a specific approach adopted with a small group of student nurses in the UK (Harling et al., 2006). One of the main problems associated with the consistent inclusion of substance misuse as a topic in nursing curricula across the UK, relates to the fact that there is no regulatory body overseeing specific curricula content. The NMC (2004) set out a series of proficiencies which each student must achieve in order to gain registered nurse status and the English National Board for Nursing, Midwifery and Health Visiting [ENB], and more recently the UKCC, have also stipulated broad areas for consideration in curricula. However, these broad recommendations are open to interpretation at the level of local educational institutions, and the inclusion of illicit drug use as a topic area, appears to rely on the inclination (and clinical interests) of teaching staff within the individual institutions.

Whilst there is a paucity of literature considering educational approaches linked to attitudes towards illicit drug use within nurse education, there is an evolving evidence base linked to the education of social work students and qualified social workers. In a similar approach to the current study, Galvani and Hughes (2010) developed a questionnaire in order to explore the attitudes and knowledge of social work students to substance misuse. A more detailed account of this research is provided in the literature review (see Chapter 3, pp.80-82), but Galvani and Hughes (2010) concluded with the following recommendation:

Social work training needs to recognize the need for alcohol and drug education within social work qualifying programmes in order that future social workers will feel equipped with the
knowledge and legitimacy to do their job and meet the needs of people who have problems with alcohol and drugs.

Such calls for the inclusion of substance misuse in the social work curriculum have been supported by the development of resources, which can be accessed by both students and qualified professionals (SWAP, 2009).

Due to the fact that nursing students generally gained lower summative attitude scores than the social work students in the current study, the need for the inclusion of education focused on substance misuse may be more imperative in nursing. Calls for such a focus are not new (Rassool & Oyefeso, 1993), however it is also important to consider the most appropriate educational approaches, if negative attitudes are to be challenged. Whilst many students in the current study mentioned their lack of knowledge around particular illicit drugs, educational initiatives based solely on addressing knowledge shortfalls may fail to substantially improve attitudes towards illicit drug use or illicit drug users. The current study identified how both cognitive and affective appraisals of illicit drugs and their use appeared influential in forming the students’ attitudes on the subject. These attitudes were developed over time, through personal and social experiences and were often influenced by perspectives such as those presented by the media.

The current study highlighted a diverse range of attitude scores, even amongst those students who had personal experience of illicit drug use or were aware that family or friends had used illicit drugs. How the students viewed their personal and social experiences appeared to be of central importance in their attitudes towards illicit drug use. This processing of experience, often at an emotional level, suggests that an acknowledgement of the affective domain, as well as the
cognitive domain, is a necessity when planning any approach aimed at improving attitudes.

The diversity in pre-existing views to illicit drug use and differences in how individual students interpreted past experiences, found in the current study, requires some consideration in terms of the educational approaches. Freire (1996) described two opposing approaches to education, the ‘banking’ and ‘problem-posing’ approaches. In the banking approach the teacher aims “to ‘fill’ the students by making deposits of information which he or she considers to constitute true knowledge” (p.57). The banking approach presupposes a passive receipt of knowledge by the student and only encourages learning to take place at a very superficial or ‘surface’ level (Biggs & Tang, 2011; Scales, 2008). Problem-posing, on the other hand, encourages students to become “critical co-investigators in dialogue with the teacher” (Freire, 1996, p.62) exploring knowledge in an egalitarian relationship. ‘Problem-posing’ approaches to learning seem to be a more appropriate method of challenging longstanding attitudes than simple ‘banking’ approaches aimed at providing a student with information about illicit drug use. Scenarios could be used as an aid in facilitating students to explore different aspects of the life and issues faced by an illicit drug user, as in the approach described by Norman (2001b).

The findings of the current study also indicated significant differences between the student nurses and the comparison groups, with the greatest difference between the student nurses and clinical psychology trainees. One approach that may prove beneficial in improving attitudes across professional groups, might be to instigate models of education that incorporate shared learning experiences. Many universities who train different groups of health and social care professionals incorporate some elements of interprofessional learning
(Miers, 2010). The benefits of such learning in developing shared value bases and instigating collaborative ways of working between healthcare professionals have been noted for some time (Department of Health [DOH], 2001). Students studying to enter different health and social care occupations could attend educational sessions aimed at improving therapeutic attitudes towards working with illicit drug users. Interprofessional groups of students could engage in activities such as those suggested by Norman (2001b) and Harling et al. (2006) in order to allow debates around attitudes and professional value bases linked to the care of substance users.

These approaches may contribute toward improving the attitudes and knowledge of individual students and improve attitudes at a profession level. Such improved attitudes may contribute towards better standards of care for what appears to be a sizable number of individuals requiring health and social care. However, careful evaluation and monitoring of the effectiveness of educational interventions would be necessary in order to ascertain their impact on professional therapeutic attitudes.

**Limitations**

Whilst the current study adds important insights and supports recommendations relating to the integration of illicit drug use as a topic in nurse education, there are limitations to some aspects of the evidence produced in the current study. Limitations imposed on the length of the questionnaire meant that it was not possible to explore independent variables in detail. Whilst the aim of the study was exploratory, investigating how a wide range of factors impacted on the attitudes of students involved in the study, some variables (notably the environment in which the student grew up and religion)
appeared to indicate the need for more detailed investigation and measurement.

**Measurement of specific variables (factors)**

The impact of drug use within the environments in which the students grew up on their attitudes to illicit drug use remained unclear in the current study. Analysis of the interview data revealed a complex interrelationship between the individual’s experiences and their processing of this experience. Different interviewees appeared to ascribe a range of meaning to situations and experiences, with some students suggesting that apparently similar contact had resulted in developing negative views and others more accepting views.

Further research would need to be conducted in order to fully consider relevant issues in more depth, perhaps using a more inductive study design. Explanations as to why some individuals are more resilient to the impact of environmental influences would also be useful in many areas of health promotion. Certainly it would be useful to know why some individuals decide to refrain from engaging in a range of health related activities they know to be a risk to their health, such as smoking tobacco or eating too much ‘junk’ food, when factors, such as parents who smoke and poor socio-economic backgrounds, suggest that they would (Wilkinson & Pickett, 2010). Health promotion tends to focus on models and activities which predict or influence behaviour on a mass scale (Tones & Tilford, 2001) with models such as the TPB seeking to expand their predictive power through the acknowledgement of an increasing number of independent variables (Armitage & Conner, 2001). Research that focuses on exploring why some individuals appear able to respond to environmental factors in ways that appear to be unpredictable might well prove to be a useful addition to existing knowledge and discourse linked to promoting health. In the current study, the impact of the
commonality of illicit drug use in the environment in which the student grew up could be more fully appreciated by developing a more detailed understanding of the influence of other factors (independent variables) and how they link to the simple measure used in the study questionnaire.

Previous research has identified that affiliation to a religious group is a significant factor in forming an individual’s attitudes and actions linked to illicit drug use (e.g. Engs & Mullen, 1999). Such a link was not identified in the current study, with neither bivariate analysis nor the regression model indicating a significant association between whether the student was affiliated to a religion or not and their attitude score. However, simply asking participants if they had a religious affiliation, does not preclude a link between religious beliefs and attitudes towards illicit drugs. Individuals may indicate such affiliation without necessarily engaging in any religious activity or adhering to any particular set of beliefs. Three students did discuss the influence of their religious beliefs on their views on illicit drugs within the interviews, but no conclusive evidence supporting how their religious beliefs had influenced their attitudes was found. These findings suggest the need to look at more sophisticated measurement of concepts such as religiosity and the interpretation of religious doctrine in future research.

A further issue was highlighted when considering possible associations between the students’ ethnicity and their summative attitude score. Horne et al. (2004) suggested that cultural background influenced the beliefs of a group of students towards the use of medicines, finding that students with an “Asian cultural background were significantly more likely to perceive medicines as being intrinsically harmful, addictive substances that should be avoided” (Horne et al., 2004, p.1307). Whilst there are very different
social issues influencing beliefs about prescribed medications and attitudes towards illicit drug use, it was not unreasonable to assume that the differences noted in Horne et al.’s study could also be present in the current study. However, due to a small number of students identifying themselves as belonging to a minority ethnic group, it was not possible to explore possible associations between ethnicity and the students’ attitudes towards illicit drugs in the current study. This would have required a different sampling approach, with the aim of recruiting a sufficient number of students for meaningful comparisons to be made.

**Longitudinal change in attitudes**

Along with issues associated with specific factors (independent variables) measured in the current study, it is possible that the longitudinal timeframe adopted was insufficient to fully measure changes in attitudes during ‘acculturation’ into the nursing profession.

The decision to focus on the CFP in the current study was taken as it was felt that the student nurses would be exposed to activities explicitly expected to impact on their attitudes and values, and that the greatest change would be seen in this year when compared to subsequent years. However, the within group analysis conducted on the attitude scores of the student nurses was inconclusive and this finding was repeated for all the comparison groups in the study. It is important to acknowledge that practice experiences vary with some students coming in to contact with illicit drug users, some not and some not being aware that they have. The lack of attitude change observed in the current study may reflect the limited timeframe (i.e. measuring attitudes at the end of training may have indicated more significant change) or could support the point made by Allcock and Toft (2002) that there are more powerful influences on student
nurses’ attitudes than nurse education. From a theoretical perspective, ideas around structure and agency would tend to support the view that a complex range of experiences and interpretations of these experiences, gained over many years, subsequently affect attitudes. Changes in such longstanding attitudes and views may take some time to become established.

**Future research**

In addition to areas for further research arising from the issues and problems encountered in the current study, there are possibilities for expanding knowledge which emerge from the achievements and successful approaches adopted in answering the research questions.

**Summative attitude scale**

As previously noted, the questionnaire developed for the current study had limitations in considering some independent variables, however, there were also many positive features worthy of mention. One of the significant issues in the design of this questionnaire was its ability to be completed within a very short time period. This was necessary in order to avoid reducing valuable teaching time for the students in the study. In order to obtain ethical approval at the participating HEI’s, it was necessary to reinforce the fact that the questionnaire would only reduce teaching time by 15 minutes. This did result in some reduction in the depth of questions included and therefore difficulties in identifying some possible influences on the attitude scale. Despite such restrictions and practical considerations, the questionnaire had several important features.

In order to facilitate the inclusion of questions relating to the students’ personal use of illicit drugs, it was important to maintain
the students’ anonymity. In true longitudinal research, however, it is important to be able to link the responses of participants at the different time points. In order to facilitate these requirements the participants were asked to answer a set of three questions on the study questionnaire. These questions consisted of a set of unique questions (such as, ‘what was the name of your first best friend?’). This allowed the researcher to match responses at both time points, whilst maintaining anonymity, an important stipulation in gaining ethical approval for collecting data linked to the sensitive subject of illicit drug use amongst trainee health and social care professionals. This approach resulted in 247 completed questionnaires (93%) being matched from the start of training to the end of the students’ first year. No mention of a similar approach to matching anonymous questionnaires in longitudinal studies could be found in existing methodological literature. It is the view of the author of the current study that such an approach has potential for further applications.

The attitudinal scale within the questionnaire also demonstrated that it was sufficiently sensitive to identify differences between individual students and different groups of students, but at the same time the reliability of this scale was indicated by the fact that there were no significant changes occurring at an individual level between the answers given at both time points. There are further potential applications for this scale, such as in experimental research designs measuring the impact of educational interventions on groups of students. For example, students could complete the questionnaire prior to participating in educational interventions aimed at improving attitudes towards working with illicit drug users, such as those described by Norman (2001b), Harling et al. (2006) or Galvani (2007). They could then be retested at a suitable time point after the intervention in order to ascertain if the intervention had achieved its aim in improving attitudes. Similarly, the questionnaire could also be
used in RCT designs, as described by Munro, Watson and McFadyen (2006), comparing the attitude scores between the intervention and control groups.

**Closing comment**

The use of Plowright’s (2011) framework for warranting conclusions enabled the author to consider how the findings from the current study were supported. The integration of the quantitative and qualitative results generated in the current study, alongside a consideration of existing research and theoretical literature allowed the author to consider each of the research questions set for the study, developing perspectives, which are potentially beneficial to nurse education.
Chapter 9: Conclusion

This chapter will state the current study’s contribution to existing knowledge and the potential impact of these findings for nurse education. Illicit drug use is a contentious issue which is often viewed from a value laden perspective, raising concern and fear across sections of society and leading to consistent attempts at a national and international level to stop the illegal trade in a wide range of substances. There has been very little research conducted into the attitudes or behaviour of student nurses linked to illicit drug use, thus raising the significance of what this piece of research adds to existing knowledge.

Acknowledging the historical time point at which this study was conducted recognises how a range of interests are likely to have influenced the participants’ views on illicit drug use and the treatment of drug users. The media often presents illicit drug use as a threat to mainstream society, national institutions such as the NHS, local communities or families and social networks. Illicit drug use is regularly raised within political debate, often being used as a metaphor for inner city crime and social deprivation. Despite illicit drug use being such a high profile, contentious issue there appears to be a lack of a focus on the topic in nurse education and other professional education in health and social care.

The aims of the current study were to identify the factors that influenced the pre-existing attitudes of student nurses toward illicit drug use, consider the ways in which these attitudes were adapted during the students’ first year of professional training/education, and discover if such adaptation was specific to nurse education.

The results indicated that student nurses who reported having used an illicit drug, and those students who were aware of illicit drug use
by family of friends, tended to have more positive attitudes towards illicit drug use at the start of their training. On a more individual level, the student nurses’ attitudes did appear to vary considerably depending upon how they interpreted these personal experiences.

When comparing the attitudes of the student nurses at the start of their training, with other health and social care students at a similar stage of higher education, differences were identified. Student nurses gained the lowest group attitude scores, indicating more negative attitudes towards illicit drugs and clinical psychology trainees gained the highest group score, indicating the most positive attitudes towards illicit drug use amongst the groups sampled.

Minimal changes in attitudes were detected over the first year of training for the student nurses and all of the other student groups. The student nurses’ attitudes increased slightly, whereas the comparison groups all decreased.

Indications were that students who had been on practice placements overwhelmingly reported negative views towards illicit drug users amongst existing practitioners. This situation is supported by previous research (Carroll, 1995; Howard & Chung, 2000; Moodley-Kunnie, 1988; Peckover & Chidlaw, 2007; Riddell, 2012) and the experiences of individual illicit drug users seeking treatment, as reported to Neale et al. (2008).

It is important not to overemphasise the potential impact of a relatively small-scale study conducted within a limited number of HEI’s. Limitations in the study design are set out in Chapter 5 (see pp.152-159) and the limitations in the evidence generated to answer the research questions are discussed in Chapter 8 (see pp.288-292). Despite such limitations, there are several areas where the findings of
the study make a significant contribution to knowledge or add to existing debates around the attitudes of student nurses to illicit drug use.

One of the key issues raised by participants was the lack of focus on illicit drug use in their courses. Many of the students felt that greater knowledge could improve their interactions with substance users as a qualified practitioner. The professionalisation of nursing and the move to a degree level qualification suggests a more academic and rigorous approach to nurse education. However, evidence from the current study would suggest that when it comes to attitudes towards, and knowledge of, illicit substances, the profession is relying on subjective views and personal experiences.

Given the longstanding and complex range of experiences that appear to have influenced the student nurses’ attitudes towards illicit drug use, changing existing attitudes is unlikely to be straightforward. The main influences on the students’ attitudes towards illicit drug use were their own personal use of illicit drugs and reported use by family and friends. Exposure to illicit drug use is clearly not something that can be directly altered through nurse education, but there are approaches to education which attempt to engage learners at a deeper level. Simply learning facts about illicit drugs does not challenge the value laden affective component of the students’ attitudes. Approaches such as the use of case studies, as described by Norman (2001b), and engaging in critical discussions, as described by Harling et al. (2006), may encourage more positive attitudes. More detailed discussions around how improvements to attitudes may be made have been suggested in the previous chapter, but careful evaluation would be needed to assess the impact of these approaches. Since the balance of existing evidence suggests that attitudes are likely to influence the care of service users/patients who
use illicit drugs, it is vital to address the lower levels of attitudes found amongst the student nurses. The ‘subjective norm’ element of the TPB (Ajzen, 1991) would suggest that without such educational initiatives, there is a danger that newly qualified nurses will simply follow existing practices of established nurses. Where this relates to a negative attitude towards substance misuse and illicit drugs, perceived social pressure may mean that they are not able to express more positive attitudes.

The focus of the study led to many difficulties and hurdles during planning and conducting the research. The influence of ‘gatekeepers’ as discussed in Chapter 5 (pp.157-159) are hard to overstate. Several HEIs presented obstacles at a management and more localised level, inhibiting access to participants even when ethical approval was granted within the HEI to undertake the study. Fears were raised, particularly within schools of nursing, that students entering health professions might be identified as illicit drug users. Even when the anonymous nature of these data was pointed out, several heads of departments and individual lecturers barred access to participants at a suitable level to make data collection within that HEI viable.

The need to measure the participants’ own illicit drug use and the importance of avoiding any detrimental impact on the students’ timetabled learning activities required very careful consideration of the design of the current study. It also proved difficult to access sufficient numbers of student nurses, and some comparison groups, to complete the study questionnaire and agree to be interviewed. However, encountering such problems and issues in the design and implementation of a research study are by no means unique to the current study. As Devine and Heath (1999, p.17) pointed out:
Sociological research rarely proceeds in a neat and tidy fashion, and it is often beset with difficulties – some of which can be anticipated while others cannot. Practical, ethical and political issues frequently confront the survey researcher or ethnographer at different stages in the research process.

This was certainly the case within the current study, requiring the author to maintain an appropriate focus, whilst at the same time adapting to the demands and difficulties raised in appropriately and ethically investigating this contentious area of enquiry.
Illegal Drug use Questionnaire

Researcher; Martyn Harling

Contact email; m.harling@derby.ac.uk
This questionnaire is designed to consider your opinions on the use of illegal drugs. It should take no more than 15 minutes to complete and you do not need to provide any identifying information. It is your choice to complete the questionnaire. If you decide not to do so there will be no negative consequences in terms of your course.

(please tick the box which most closely relates to your feelings about each statement)

1. The use of illegal drugs (such as cannabis, heroin, amphetamine and cocaine) is increasingly common in the UK.
   AGREE □ DISAGREE □ DON’T KNOW □ DON’T WANT TO COMMENT □

2. Illegal drug use crosses barriers of wealth and social status (ie both the poor and rich use illegal drugs).
   AGREE □ DISAGREE □ DON’T KNOW □ DON’T WANT TO COMMENT □

3. It is possible to tell if someone uses illegal drugs simply by looking at them.
   AGREE □ DISAGREE □ DON’T KNOW □ DON’T WANT TO COMMENT □

4. It is not possible to use illegal drugs occasionally
   AGREE □ DISAGREE □ DON’T KNOW □ DON’T WANT TO COMMENT □

5. ‘Softer’ drugs, such as cannabis, are dealt with too harshly within the UK legal system.
   AGREE □ DISAGREE □ DON’T KNOW □ DON’T WANT TO COMMENT □

6. Illegal drug users should receive stiffer prison sentences if caught.
   AGREE □ DISAGREE □ DON’T KNOW □ DON’T WANT TO COMMENT □

7. Individuals using illegal drugs in their own home should not be prosecuted if their use does not cause harm to others.
   AGREE □ DISAGREE □ DON’T KNOW □ DON’T WANT TO COMMENT □

8. Most young people are first introduced to ‘hard’ drugs such as heroin and cocaine by a street dealer.
   AGREE □ DISAGREE □ DON’T KNOW □ DON’T WANT TO COMMENT □

9. Working with drug users is a rewarding role.
   AGREE □ DISAGREE □ DON’T KNOW □ DON’T WANT TO COMMENT □

10. Treating illegal drug users is a waste of NHS resources.
    AGREE □ DISAGREE □ DON’T KNOW □ DON’T WANT TO COMMENT □
The next three questions allow the researcher to compare the answers you give at the start of your course with those you give after your first year on the course (try to remember the answers you give).

What was the number of the first house you can remember living in............
What was the first name of your first friend at school?..........................
What was the name of your first pet?.............................................

The following questions provide a little background information about you.

11. Are you female □ or male □
12. What is your age? ..............
13. What is your religion? (please state or enter ‘none’)..........................
14. Please state the highest qualification you have .................................
15. Which category best describes your ethnicity: (please tick one box)

<table>
<thead>
<tr>
<th>Asian or Asian British:</th>
<th>Mixed:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indian</td>
<td>White and Black Caribbean</td>
</tr>
<tr>
<td>Pakistani</td>
<td>White and Black African</td>
</tr>
<tr>
<td>Bangladeshi</td>
<td>White and Asian</td>
</tr>
<tr>
<td>Any other Asian background</td>
<td>Any other mixed background</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Black or Black British:</th>
<th>Other ethnic group:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caribbean</td>
<td>Chinese</td>
</tr>
<tr>
<td>African</td>
<td>Any other ethnic group</td>
</tr>
<tr>
<td>Any other black background</td>
<td>Not stated:</td>
</tr>
<tr>
<td>White:</td>
<td>I prefer not to state my ethnicity</td>
</tr>
<tr>
<td>British</td>
<td></td>
</tr>
<tr>
<td>Irish</td>
<td></td>
</tr>
<tr>
<td>Any other white background</td>
<td></td>
</tr>
</tbody>
</table>

16. From the following list place a tick in the box which best describes your experiences around the use of each particular drug.

<table>
<thead>
<tr>
<th>Type of Drug</th>
<th>I have never tried this drug</th>
<th>I have tried this drug once/a few times in the past</th>
<th>I have used this drug in the past year</th>
<th>I have used this drug in the past month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amphetamine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cannabis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cocaine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ecstasy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heroin</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LSD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ketamine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

17. Do you know of any friends or family members who use illegal drugs?

YES □ NO □ DON'T WANT TO COMMENT □
18. Was illegal drug use common in the area/environment in which you grew up?

AGREE □ DISAGREE □ DON’T KNOW □ DON’T WANT TO COMMENT □

Additional comments relating to your experiences of illicit drug use;

Please fill in the following section if you work (or have worked) in a health and social care environment.

19. How often have you been in contact with a known illegal drug user in a practice setting?

DAILY □ WEEKLY □ MONTHLY □ NEVER □ DON’T KNOW □

20. Within the areas in which you work (or have worked) do you feel that illegal drug users are thought of differently to other groups of patients/clients?

AGREE □ DISAGREE □ DON’T KNOW □ DON’T WANT TO COMMENT □

21. Within the areas in which you work (or have worked) have you noticed a different level of care for patients/clients who are identified as illegal drug users

AGREE □ DISAGREE □ DON’T KNOW □ DON’T WANT TO COMMENT □

Additional comments relating to your work experiences;

The following questions provide information about the education you have received about illegal drugs.

22. Please state the approximate number of hours you have spent being taught about illegal drugs prior to your current course.

23. Have you been taught about illegal drugs in;

PRIMARY SCHOOL □ SECONDARY SCHOOL □ FURTHER EDUCATION/6TH FORM □

HIGHER EDUCATION OR UNIVERSITY □

Additional comments relating to your education around illegal drugs;

StN 123 (unique code used to link questionnaire to interview data)
The researcher would like to ask if you would be willing to participate in a one-to-one interview.

It will focus on your views around some of the areas mentioned in the questionnaire you have just completed.

The interview will be arranged at a suitable time and location and should take no longer than 30 minutes.

If you would be willing to take part please complete the following section.

Please provide a telephone number or email address where you can be contacted

Please provide a name (first name) which is acceptable for me to use when I contact you

StN 123 (unique code used to link questionnaire to interview data)
Appendix B – Interview schedule

**Views.**

Imagine a scale from 1 to 10, with 1 being very much against illicit drug use and 10 being in favour of individuals being able to choose if they would like to use a particular drug.

Where would you say you fall?

What has influenced this view?

Would you say your views have changed since starting your course?

**Background**

Tell me a little about the kind of area where you grew up.

Would you say that people close to you used illicit drugs?

If so, what were the most common drugs used?

Do you feel this has influenced your views on the topic?

If so how?

**Knowledge**

How knowledgeable would you say you are on the topic of illicit drugs?

Where has this knowledge come from?

**Practice Environment**

Have you worked with individuals known to be using illicit drugs?

What was this experience like?

How were illicit drug users viewed by the organisation in which you worked?

What is your view of working with illicit drug users?

Do you think the professionals you have worked with share this view?
Appendix C – Participant Information Leaflet

‘The factors involved in shaping the attitudes of student nurses toward illicit drug use’.

Name of Investigator: Martyn Harling
You are invited to take part in a research study. Before you decide whether to take part it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully. Talk to others about the study if you wish. Please ask if there is anything that is not clear or if you would like more information. Take time to decide whether you wish to take part or not. If you decide to take part you may keep this leaflet. Thank you for reading this.

What is the purpose of the study
The study will form part of a Doctoral level qualification. It will focus on the attitudes and experiences of students in health and social care linked to the use of illicit substances. Comparisons will be made between nursing, social work, health and social care and clinical psychology students (which is why you are being asked to participate). The aim of the study is to explore opinions around illicit drug use and consider how this is influenced by personal experiences and education/training.

Why have I been chosen?
You have been chosen because you are currently studying a relevant qualification.

What will happen to me if I take part?
There are two elements of the study. In the first element you will be given a questionnaire to complete. This will take approximately 15 minutes. Secondly volunteers will be sought to take part in a private, one-to-one, interview with the investigator. This 30 minute interview will be arranged between yourself and the researcher at a convenient time and in a private location. Interviews will be tape recorded to help the researcher make an accurate record of your interview. These two approaches to data collection will be repeated towards the end of your second year of training. You can complete the questionnaire and not take part in an interview.

Do I have to take part?
NO. It is up to you to decide whether or not you wish to take part. If you do, you will be given this information sheet to keep. If you volunteer to take part in the interviews you will be asked to sign a consent form, a copy of which you may keep. You are free to withdraw at any time without giving a reason. A decision not to take part or to withdraw will not affect your position, or the way you are treated, on your course. If you decide to withdraw during an interview the recording equipment will be turned off and the recording erased straight away.

What if something goes wrong?
If you feel uncomfortable about the issues you have raised you may withdraw from the study at any point. If you wish to withdraw your
questionnaire you can provide the researcher with the answers to the three unique questions and they will remove and destroy your questionnaire. If you decide to withdraw during an interview you can request that the recording equipment is switched off and the recording will be erased.

The researcher has a lot of experience in, conducting these types of interview, and in the study of illicit substance use. If you feel that the interview has raised issues that you would like to discuss further, the researcher will be available to talk to you about this. If you would like to discuss these issues with a third party the researcher can help you to seek appropriate support.

**Will my taking part in this study be kept confidential?**

**Yes.** All information will be kept confidential. The questionnaires are anonymous. You will only be asked for information which allows the researcher to link your questionnaire with any subsequent questionnaires you fill in. This information is not traceable back to you. No identifying information will be collected during the interview.

Before participating in an interview you will be asked to sign a consent form. This consent form will be stored in a locked cabinet, separate from any interview transcripts. All information and interview transcriptions will be stored according to the Data Protection Act, i.e. computerised records will be stored on a database that is password protected and strictly confidential.

**What will happen to the results of the research study?**

It is hoped that the results of the study will inform future teaching around illicit substance use and will be used within the researcher’s thesis, sections of which may be submitted for publication.

**Who is organising and funding the research?**

The research is not funded by any organisation and is being undertaken in fulfilment of a doctoral qualification.

**Who has reviewed the study?**

This research is being supervised within the University of Leicester, Sociology Department, by Dr Patrick White.

**Contact for Further Information**

If you have any further questions, please contact Martyn Harling at xxxx@xxx.com or xxxx@xxxx.ac.uk or Tel. xxxx xxxx.
Appendix D – Piloting the questionnaire

Despite developing elements of the questionnaire used in the current study from existing questionnaires, such as the SSAAS and BCS, there were sufficient dissimilarities to any existing tool to warrant testing the questionnaire. Differences in the construction, focus and length of the questionnaire led to the conclusion that validity and reliability testing should be undertaken.

Content validity, where the research instrument is considered in terms of the depth and breadth of its coverage of the topic area (Cohen et al., 2011), was assessed by issuing a draft version of the questionnaire to a comparable group of first year student nurses to those participating in the study. The test group \( (N = 10) \) was informed that the purpose of the exercise was to improve the questionnaire and asked to complete the draft version. They then gave verbal feedback on issues relating to their understanding and ability to complete the questionnaire. This process was repeated with a group of senior academic staff teaching in nurse and health and social care education \( (N = 15) \). Discussions with both groups focused on individual questions and their relationship to the topic area and suggestions were made around improving the questionnaire. Changes were made to the draft of the questionnaire based on these verbal recommendations and any issues highlighted within the completed draft questionnaires. Minor alterations were made relating to the
wording of some questions, the amount of space required for answering some of the open-ended questions and the inclusion of an extra ‘don’t know’ category for question 17.

Issuing the modified questionnaire to a pilot group of 85 social work students tested the test-retest reliability of the questionnaire. The questionnaire was issued twice to the same group of students, with a two-week gap between each completion. This was undertaken in a classroom environment in order to match how the questionnaire would be delivered in the actual study. The purpose of this exercise was clearly stated to all of the students involved in the test and the exercise was integrated into part of their EBP module. Completed questionnaires were checked for reliability by comparing differences between the two sets of completed questionnaires, which could be matched at an individual level.

A non-parametric Wilcoxon signed-rank test was used to compare responses to the attitude scores at the two time points. The results of this test on the attitude scores indicated that there was no significant difference between the scores at the two time points ($z = -0.47, p = .64$ two-tailed). Thus the test-retest reliability was established for the attitude scale in the study questionnaire.
Participants in the pilot test were also asked to comment on the mode of delivery of the questionnaire. A group discussion was facilitated focusing on the students’ views and experience around completing the questionnaire within a classroom environment. All of the students found this to be acceptable, on the proviso that voluntary participation, along with the participant’s right to opt out of completing any elements of the questionnaire that made them feel uncomfortable, was reinforced. This point was subsequently verbally reinforced with each of the groups of students involved in the actual study. None of the data generated whilst piloting the questionnaire was included in the data set for the main study.
Appendix E – Screeplot from Principal Components Analysis
[PCA] of Likert scale
Appendix F – Pattern and structure matrix for PCA

<table>
<thead>
<tr>
<th>Item</th>
<th>Pattern coefficients</th>
<th>Structural coefficients</th>
<th>Communalties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 5 from attitude scale</td>
<td>.707</td>
<td>.700</td>
<td>.495</td>
</tr>
<tr>
<td>Question 7 from attitude scale</td>
<td>.659</td>
<td>.632</td>
<td>.437</td>
</tr>
<tr>
<td>Question 1 from attitude scale</td>
<td>.497</td>
<td>.516</td>
<td>.300</td>
</tr>
<tr>
<td>Question 10 from attitude scale</td>
<td>.141</td>
<td>.173</td>
<td>.632</td>
</tr>
<tr>
<td>Question 3 from attitude scale</td>
<td>.120</td>
<td>.193</td>
<td>.493</td>
</tr>
<tr>
<td>Question 4 from attitude scale</td>
<td>.182</td>
<td>.250</td>
<td>.570</td>
</tr>
<tr>
<td>Question 8 from attitude scale</td>
<td>.092</td>
<td>.161</td>
<td>.505</td>
</tr>
<tr>
<td>Question 9 from attitude scale</td>
<td>-.255</td>
<td>-.183</td>
<td>.493</td>
</tr>
<tr>
<td>Question 2 from attitude scale</td>
<td>.246</td>
<td>.143</td>
<td>.711</td>
</tr>
<tr>
<td>Question 6 from attitude scale</td>
<td>.284</td>
<td>.368</td>
<td>.543</td>
</tr>
</tbody>
</table>

Notes. Major loadings for each item are bolded.
C = Extracted component.
Oblimin Rotation of Four Factor Solution of Likert scale
Appendix G – Consent form

RESEARCH PROJECT CONSENT FORM

Department/school ………………………………………………………………………

Course………………………………………………………………………………….

Title of Project ;

The factors involved in shaping the attitudes of student nurses toward illicit drug use

Investigator’s full name and status;
Martyn Richard Harling (Lecturer in Health and Social Care, Xxxx University)

Subjects Project No………………

(please initial boxes)

1. I confirm that I have read and understood the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving reason and without my education being affected.

3. I am aware that the project report will form part of a doctoral thesis and may form part of a publication.

4. I am aware that interviews will be recorded and that I can see the transcripts of the interview if I wish.

5. I am over 18 years of age.

Name of participant …………………Date …………Signature………………….

Researcher………………………………Date …………Signature…………………

When completed, 1 copy for participant, 1 copy for researcher. All consent forms will be stored separately from interview transcripts in a locked cabinet.
Appendix H – Thematic code descriptor

- **label**
  
  ‘Own use’

- **definition**
  
  Concerned with any disclosure from a participant relating to their personal use of an illicit drug (controlled under the **Misuse of Drugs Act (1971)**)

- **description of how to know when the theme occurs**
  
  Any mention of the use of an illicit drug using ‘street terminology’ (such as ‘speed’, ‘whiz’, ‘billy’, ‘base’ or ‘pink champagne’ etc…) or more widely used descriptors (such as Amphetamine Sulphate). This could occur as a passing remark or in a more detailed contextual discussion.

- **A description of any qualifications or exclusions to the identification of the theme.**

  This does not include alcohol, tobacco or prescription medication (even if used for non-medical purposes) but could include anabolic steroids.

- **Examples, both positive and negative, to eliminate possible confusion when looking for the theme.**

  See above points
Appendix I – Variables entered into regression model

<table>
<thead>
<tr>
<th>Order in initial model</th>
<th>Variable title</th>
<th>Description</th>
<th>Order of removal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gender</td>
<td>Dichotomous variable, category ‘female’ set as reference category (0)</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>White British vs BME</td>
<td>Dichotomous variable, category ‘white British’ set as reference category (0) all other categories of ethnicity set as 1</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>No religion vs religion</td>
<td>Dichotomous variable, category ‘no religion’ set as reference category (0) all other categories of religious affiliation set as 1</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Age</td>
<td>Scale data</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>Enviro agree vs disagree</td>
<td>Dummy variable comparing knowledge of illicit drug use in the students childhood environment, category ‘Agree’ set as reference (0), ‘disagree’ set as 1.</td>
<td>13</td>
</tr>
<tr>
<td>6</td>
<td>Enviro agree vs don’t know</td>
<td>Dummy variable comparing knowledge of illicit drug use in the students childhood environment, category ‘Agree’ set as reference (0), ‘don’t know’ set as 1.</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>Family dummy</td>
<td>Dichotomous variable created from awareness of illicit drug use by family or friends, category ‘yes’ set as reference category (0), category ‘no’ set as 1</td>
<td>Retained</td>
</tr>
<tr>
<td>8</td>
<td>Everused dummy</td>
<td>Dichotomous variable created from self-reported illicit drug use, category ‘yes’ set as reference category (0), category ‘no’ set as 1</td>
<td>Retained</td>
</tr>
<tr>
<td>9</td>
<td>Hours in education</td>
<td>Scale data referring to hours of education linked to illicit drugs</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>A level/NVQ vs GCSE</td>
<td>Dummy variable comparing A-level/NVQ qualification (at entry to training) to GCSE, category ‘A level’ set as reference (0), GCSE set as 1.</td>
<td>12</td>
</tr>
<tr>
<td>Order in initial model</td>
<td>Variable title</td>
<td>Description</td>
<td>Order of removal</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>11</td>
<td>A levelNVQ vs access course</td>
<td>Dummy variable comparing A-level/NVQ qualification (at entry to training) to access course, category ‘A level’ set as reference (0), access course set as 1.</td>
<td>7</td>
</tr>
<tr>
<td>12</td>
<td>A levelNVQ vs diploma</td>
<td>Dummy variable comparing A-level/NVQ qualification (at entry to training) to diploma, category ‘A level’ set as reference (0), diploma set as 1.</td>
<td>6</td>
</tr>
<tr>
<td>13</td>
<td>A levelNVQ vs degree</td>
<td>Dummy variable comparing A-level/NVQ qualification (at entry to training) to degree, category ‘A level’ set as reference (0), degree set as 1.</td>
<td>Retained</td>
</tr>
<tr>
<td>14</td>
<td>A levelNVQ vs masters</td>
<td>Dummy variable comparing A-level/NVQ qualification (at entry to training) to masters, category ‘A level’ set as reference (0), masters set as 1.</td>
<td>3</td>
</tr>
<tr>
<td>15</td>
<td>Stn vs Midwife (post)</td>
<td>Dummy variable comparing student nurse to post-registration midwifery student, category ‘student nurse’ set as reference (0), post-reg midwifery stn set as 1.</td>
<td>Retained</td>
</tr>
<tr>
<td>16</td>
<td>Stn vs Midwife pre</td>
<td>Dummy variable comparing student nurse to pre-registration midwifery student, category ‘student nurse’ set as reference (0), pre-reg midwifery stn set as 1.</td>
<td>8</td>
</tr>
<tr>
<td>17</td>
<td>Stn vs SW stn</td>
<td>Dummy variable comparing student nurse to social work student, category ‘student nurse’ set as reference (0), SW stn set as 1.</td>
<td>Retained</td>
</tr>
<tr>
<td>18</td>
<td>Stn vs H&amp;SC</td>
<td>Dummy variable comparing student nurse to health and social care student, category ‘student nurse’ set as reference (0), H&amp;SC stn set as 1.</td>
<td>11</td>
</tr>
<tr>
<td>19</td>
<td>Stn vs DClinPsy</td>
<td>Dummy variable comparing student nurse to clinical psychology trainee, category ‘student nurse’ set as reference (0), CClinPsystn set as 1.</td>
<td>Retained</td>
</tr>
</tbody>
</table>
Appendix J – Diagnostic tables and tools for final regression model

Correlation matrix for the final linear regression model

<table>
<thead>
<tr>
<th></th>
<th>SIN vs</th>
<th>SIN vs</th>
<th>SIN vs</th>
<th>A levelNVO</th>
<th>Family dummy</th>
<th>everused dummy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Attitude 1</td>
<td>MtvWrk</td>
<td>SIN vs SWstr</td>
<td>DCInPay vs degree</td>
<td>everused dummy</td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>1.000</td>
<td>.073</td>
<td>.187</td>
<td>.194</td>
<td>.006</td>
<td>-.228</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>.105</td>
<td>.123</td>
<td>.247</td>
<td>.394</td>
<td>.000</td>
<td>.031</td>
</tr>
<tr>
<td>N</td>
<td>296</td>
<td>296</td>
<td>296</td>
<td>296</td>
<td>296</td>
<td>296</td>
</tr>
</tbody>
</table>

Normal Probability Plot (P-P) of the regression standardised residuals

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Attitude 1
Histogram of regression standardised residuals

Scatter plot of regression standardised residuals
References


Allcock, N. and Standen, P. J. (1999). The effect of student nurses’ experiences over the Common Foundation Programme on their


Miskelly, B. (2010, October 14). Degree must put drugs on the syllabus. *Community Care*. p.3.


354


